August 3, 2023

John Karl Alexy  
Associate Administrator for Railroad Safety  
Federal Railroad Administration  
1200 New Jersey Avenue S.E.  
Washington, D.C. 20590  
FRAWaivers@dot.gov  
karl.alexy@dot.gov

Re:  Petition for Extension of Waiver of Compliance, Docket No. FRA-2003-15012

Dear Mr. Alexy,

Canadian National Railway Company, on its own behalf and on behalf of its indirect subsidiary Grand Trunk Western Railroad Company (collectively “CN”) is providing this letter in support of its pending request for an extension of the 49 C.F.R. 241.7 waiver that FRA has had in place since 2003 for two CN fringe border operations—an approximately 2.8-mile segment of track through the Paul M. Tellier tunnel between Sarnia, Ontario and Port Huron, Michigan (“Sarnia-Port Huron Track”), and an approximately 43.8 mile segment of track on CN’s Sprague Subdivision between Baudette and International Boundary, Minnesota (“Sprague Track”). These two fringe border operations were designated for “special relief” in FRA’s 2002 rulemaking establishing a U.S. locational requirement for dispatching U.S. rail operations, out of a recognition that these segments adjacent to the U.S.-Canada border had historically been dispatched from Canada and that continued Canada-based dispatching of these segments was consistent with rail safety so long as appropriate safety programs and security safeguards were in place.  

CN submitted a request for a five-year extension on November 17, 2022. The factors that led FRA to grant the waiver for these two operations in 2004 (and subsequent renewals) have not materially changed. CN looks forward to FRA’s decision on CN’s request for a five-year extension, and below CN details the reasons why an extension should be granted.

CN consulted with the president of the American Train Dispatchers Association, the union that represents CN’s U.S. Rail Traffic Controllers, prior to submitting this supplement. CN acknowledges the letter submitted by the Transportation Trades Department, AFL-CIO

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2 CN also incorporates all of its prior submissions in this docket in support of its current waiver extension request.
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(“TTD”) in this docket, and believes that the information provided herein fully responds to TTD’s requests for additional documentation of the need for the waiver.

CN’s Waiver Extension Request for the Fringe Border Sarnia-Port Huron Track and Sprague Track Should Be Granted.

FRA adopted its U.S. locational requirements for dispatching of U.S. rail operations in 49 C.F.R. pt. 241 in 2002. In adopting the regulations, FRA determined that “special treatment” was appropriate for certain existing extraterritorial dispatching operations in Canada, and created a special fringe border dispatching waiver process at 49 C.F.R. 241.7(c) for railroad employees who are located in Canada or Mexico and who are dispatching operations in the United States that are immediately adjacent to the border. FRA recognized that “it will not always be practical or economical to conduct a ‘hand-off’ of train operations between a U.S. and foreign dispatcher …, especially when the length of U.S. trackage involved is small and the train movements on that trackage make no stops in the U.S.” A waiver request for fringe dispatching under 241.7(c) “will generally be approved by FRA” if the waiver request meets the terms of 241.7(c)(2) and (3).

Both the Sarnia-Port Huron Track and the Sprague Track continue to satisfy the conditions at 49 C.F.R. 241.7, under which FRA initially found that CN’s longstanding extraterritorial dispatching from Canada of these two fringe border segments was entitled to a waiver in 2004. Both line segments have been regularly and safely dispatched from Canada since the FRA adopted its U.S. locational rules for dispatching, and CN’s expectations are settled in this regard. Pursuant to CN’s extension request, CN seeks to continue what it has been safely doing for decades.

A. Sarnia-Port Huron Track

The Sarnia-Port Huron Track for which CN seeks an extension of the waiver consists of approximately 2.8 miles—between milepost 60.63 on the Strathroy Subdivision at the U.S.-Canada border (in the Paul M. Tellier Tunnel under the St. Clair River) and milepost 332.4 on the Flint Subdivision at Tappan in Port Huron, Michigan. Canadian National Railway Company’s indirect U.S. rail operating subsidiary Grand Trunk Western Railroad Company owns the Sarnia-Port Huron Track. Excerpts of the current Canadian timetables for the Strathroy

5 49 C.F.R. § 241.7(c)(1).
6 There is a milepost equation at Port Huron, where milepost 61.69 (Strathroy) equals milepost 334.31 (Flint). The Strathroy and Flint Subdivisions have overlapping designations within Port Huron in CN’s U.S. timetables. The operational handoff point between U.S. and Canadian dispatching remains at Tappan, as it has been continuously since before the Final Rule was adopted. CN clarifies that the scope of the waiver it seeks now is the same as that which was initially granted in 2004 and in subsequent extensions in 2009 and 2013. The length of the track dispatched from Canada has been the same since 2003 and has not changed.
Subdivision and Flint Subdivision are attached as Exhibit A. Today, approximately 17 trains per day operate on this portion of track.\(^7\)

FRA well understood the limited nature of CN’s fringe border dispatching of the Sarnia-Port Huron track when it issued its *Interim Final Rule*,\(^8\) *Final Rule*,\(^9\) and initial waiver determination. Canadian dispatchers dispatch trains through the international tunnel to and from a point just outside of the tunnel in the United States, where interchange, crew change, and transfer of operation occur. Although dispatching of the Sarnia-Port Huron Track is done from Canada, Canadian dispatchers communicate and coordinate with U.S. dispatchers in preparation for the border handoff, and U.S. dispatchers clear a train to proceed out of the tunnel and take over dispatching once the train reaches Tappan on the Flint Subdivision. The same process takes place in the opposite direction, with U.S. and Canadian dispatchers coordinating the hand off of trains bound for Canada into the tunnel.

It would be impractical to require a dispatching transfer underwater in the middle of the single-track tunnel, at the precise international border between Canada and the United States. The extent of U.S. dispatching on this segment is approximately 2.8 miles. That is less than the five-mile standard for operations not being conducted at the time when the regulations were adopted (*see* 49 CFR 241.7(c)(3)(i)(B)). Granting the waiver extension avoids any risk or safety concern associated with a hand-off in the middle of a single-track underwater tunnel.

**B. Sprague Track**

Canadian National Railway Company’s Sprague Subdivision is located predominately in Canada, extending approximately 145 miles from Navin (near Winnipeg), Manitoba to Rainy River, Ontario. Canadian National Railway Company’s predecessor built the Sprague Subdivision as part of a rail project to connect Winnipeg with Thunder Bay (formerly Port Arthur) on the Canadian side of Lake Superior. The Sprague Subdivision was constructed to provide a route for Canadian grain from the prairies to reach the Great Lakes for further export. Although the vast majority of the route is in Canada, the Sprague Subdivision has a unique 43.8-mile stretch that traverses through the United States in northern Minnesota around the southern edge of Lake of the Woods. That 43.8-mile stretch between Baudette and International Boundary, Minnesota, is the Sprague Track. The Sprague Track has four sidings; there are no interchanges and no passenger traffic on the Sprague Track. The U.S. portion of the Sprague Subdivision is remote, with no major population centers along this segment of track: the largest town is Warroad, Minnesota, with a 2020 census population of 1,830.\(^10\) The Sprague Track is shown in the map below.

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\(^7\) Compare CN Initial Waiver Petition at 1 (approximately 26 trains per day).

\(^8\) *Interim Final Rule* at 63,944 (describing the limited train movements that existed, including 3 miles to Port Huron, Michigan).

\(^9\) *Final Rule* at 75,939; Appendix A to part 241.

While the geography of the Lake of the Woods caused the Sprague Track to cross over to the U.S. side of the border, operations on the Sprague Track are essentially Canadian operations. Trains on the Sprague Track do not stop at the border or undergo customs inspections when they enter or leave the United States, and do not change crews in the United States. The Sprague Track does not connect to any other CN track segments in the United States, or the tracks of any other rail carrier. The U.S. portion of the Sprague Subdivision has been dispatched from Canada for over a century. An excerpt of the current timetable for the Sprague Subdivision is attached as Exhibit B. Today, approximately 21 trains per day operate on this portion of the Sprague Subdivision.  

Dispatching on the uniquely situated Sprague Track should continue as it has under the waiver. To require the Sprague Track to be dispatched from the United States would introduce not just one, but two hand-offs, given that the track only briefly enters the United States before re-entering Canada. In other words, to change dispatching on the Sprague Track would require coordination between U.S. and Canadian dispatchers for both entering and exiting the United States, all on a limited segment where the train otherwise does not stop at the border, undergo a customs inspection, or change crews in the United States. Changing dispatching on this limited segment would introduce further complexity and risk due to the fact that Canadian crews would have to be cross-trained in U.S. operating rules, and the fact that CN currently utilizes different systems for U.S. and Canadian dispatching. Adding such complexity to longstanding dispatching operations in these circumstances is not in the interest of railroad safety.

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11 Compare CN Initial Waiver Petition at 1 (approximately 15 trains per day).
C. The Sprague Track and Sarnia-Port Huron Track Continue to Qualify for the Fringe Border Dispatching Waiver

The Sprague Track and Sarnia-Port Huron Track qualified for the special fringe border dispatching waiver at 49 C.F.R. 241.7(c) in 2004, and continue to do so.

Drug and Alcohol Policies. CN provided in its initial waiver a copy of its drug and alcohol abuse prevention program and explained why that program qualified under 49 C.F.R. 241.7(c)(2)(iii). CN’s drug and alcohol policies and testing procedures, in combination with Canadian law, continue to satisfy the core concerns of the regulation. Dispatchers (known in Canada as Rail Traffic Controllers or RTCs) are considered safety critical employees. The Canadian Railway Medical Rules for Positions Critical to Safe Railway Operations require medical assessments, which includes assessments related to substance abuse or dependence, for such employees prior to commencement, promotion, or transfer to such position and periodically thereafter. CN’s policies contemplate the following types of drug and alcohol testing: pre-employment; pre-assignment to a safety-sensitive position; as part of a fitness for duty assessment; reasonable cause; post-accident; relapse prevention; and as part of an agreement under a continuing employment contract. See Exhibit C for CN policy excerpts. While CN has long argued for legislation to allow random testing for safety critical employees, the lack of such legislation in Canada was known to FRA at the time of CN’s initial waiver and subsequent extensions.

Operating Rules. The Sarnia-Port Huron Track and the Sprague Track are still operated in accordance with the Canadian Rail Operating Rules, which have been approved by Transport Canada. A current copy of those rules is attached as Exhibit D. Transport Canada remains authorized under law to conduct audits for rule compliance.

Hours of Service. CN hours of service for Canadian employees remain subject to the Canada Labour Code. As in 2003, all of CN’s RTCs are governed by a collective bargaining agreement. Under the current collective bargaining agreement, RTCs are still scheduled for 8-hour shifts under normal assignment. The regular work week is 5 days with 2 consecutive rest days. In case of emergency, dispatchers may be required to work more than the normal 8-hour shift, but they are generally limited to 48 hours of duty in a week under the Canada Labour Code.

Efficiency Testing. CN continues to have an extensive program for verifying its Canadian-based operating employees’ knowledge and compliance with rules and regulations. CN’s efficiency testing program in Canada is now referred to as its Transportation Safety Observation Manual.12 The program remains similar to the U.S. requirements that CN uses for its U.S.-based dispatching. A current copy of CN’s Transportation Safety Observation Manual is attached as Exhibit E.

Security Protocols. As noted in CN’s November 2022 waiver extension request, CN’s RTC Center at Macmillan Yard in Concord, Ontario (outside of Toronto) has been idled, and

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12 Since the initial waiver, Transport Canada adopted its Safety Management System Regulations, 2015.
dispatching for the Sarnia-Port Huron Track has been moved to the RTC Center at Edmonton, Alberta. Under the existing waiver, the Sprague Track is already dispatched from Edmonton. Security measures for CN’s Canadian dispatching operations at the Edmonton RTC Center remain robust, as they were in 2003 when the initial waiver was granted. Security cameras remain in use and security/access cards continue to be required for access. There are no exterior windows in the Edmonton RTC Center and no direct access from the outside. Moreover, the Edmonton RTC Center is located within Walker Yard, which has a CN Police office and a 24/7 CN Police patrol.

* * *

Because CN’s operations in dispatching the Sprague Track and Sarnia-Port Huron Track continue to qualify for the special fringe border dispatching waiver process under the regulations, FRA should grant the extension request. CN has safely dispatched these limited U.S. segments adjacent to the Canadian border for decades. The waivers in these cases promote railroad safety for the reasons described above.

Thank you for your consideration and please let us know if CN can provide additional information. As the Assistant Vice President Safety for CN, responsible for safety in both the United States and Canada, I can vouch for the continuing safe and necessary nature of extraterritorial dispatching of CN’s Sarnia-Port Huron Track and Sprague Track.

Sincerely,

Matthew McClaren
Assistant Vice President Safety

Attachments

c: Christian Holt, FRA Operating Practices Staff Director, christian.holt@dot.gov
Michael Bodoh, FRA SMT-4 Regional Administrator, michael.Bodoh@dot.gov
Kirk Gill, SMT-4 FRA Deputy Regional Administrator, kirk.gill@dot.gov
Dillon Ondo, CN Senior Manager Regulatory, dillon.ondo@cn.ca
Ryan Bailey, CN Regulatory Manager
Kathryn Gainey, CN Deputy General Counsel
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<thead>
<tr>
<th>LOCATION</th>
<th>MILE</th>
<th>DOB/TGBO LIMITS</th>
<th>SUBDIVISION STANDBY CHANNEL (END TO END)</th>
<th>DTMF RTC STANDBY CHANNELS</th>
<th>ENGINEERING CHANNELS</th>
<th>WAYSIDES INSPECTION SYSTEM</th>
<th>SPECIAL DANGEROUS COMMODITIES ZONE</th>
<th>KEY TRAIN / HIGHER RISK KEY TRAIN ZONE</th>
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1.0 APPLICABLE ON SUBDIVISION

1.1 OTHER SIGNALLED TRACKS - CTC applicable

LONDON WEST STATION TRACK AL01 - Mile 78.2
Extends between signal 774 Mcleod and signal 01D1 Ridout.
Station and controlled location Burwell St located at mile 77.8
Maximum speed ................................................................. 15 mph

SOUTH SERVICE TRACK - Mile 59.2
Extends between signal 591S1 at mile 59.1, and signal 583D at mile 58.3.
MAXIMUM SPEED ................................................................. 45 mph
1.2 Rule 102 Applicable between miles:

<table>
<thead>
<tr>
<th>Strathroy Sub</th>
<th>CP Windsor Sub</th>
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</thead>
<tbody>
<tr>
<td>Mile 5.2 and 6.1</td>
<td>Mile 4.9 and 5.8 CP CH 1 (AAR 9191)</td>
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</tbody>
</table>

1.3 Rule 105(c) not applicable in Sarnia Yard.

Exception: Rule 105 (c) is applicable on:
- On Eastward Departure track - mile 55.8
- On St-Clair River Industrial spur
- On Farm Track
- On Point Edward Spur

1.4 Rule 157 TGBO - Through train movements between London and Sarnia/Port Huron will operate with a TGBO unless authorized by the RTC to use a DOB.

1.5 Rule 576(b) Switching Signals

- Modeland: Signals 563S and 564S or 564D
- MacGregor: Signals 581S1 and 582S or 583D

1.6 Rule 578 - Applicable on single and multi-track.

1.7 RESTRICTED CLEARANCES NOT MARKED OR INDICATED BY RESTRICTED CLEARANCE SIGNS.

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<th>Location</th>
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<tr>
<td>Mile 20.6</td>
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<tr>
<td>Sarnia-Port Huron</td>
<td>Towers, anchors, tunnel</td>
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1.8 HPTA Throttle Notch limitations may be exceeded between:

<table>
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<th>Direction</th>
<th>Mileage</th>
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<td>Westbound</td>
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<tr>
<td>Eastbound</td>
<td>Mile 62 to mile 56</td>
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2.0 STATIONS

2.1 SARNIA YARD TERMINAL AREA

Eastbound trains at Sarnia must check fuel levels when changing crews and report findings to the RTC.

Employees entering or working in the Sarnia Terminal area are governed by and must have a copy of the current Sarnia Terminal Operating Manual accessible while on duty.

2.2 SARNIA-PORT HURON TUNNEL

Rule 104.2 and Rule 564 Port Huron/Hobson

Movements operating under a Rule 564 authority at the following signals will be governed by Rule 104.2 at the Dual Control split rail derails indicated.

Eastward signals 3340T1, 3340T2, 3340T3, 3340T4, or westward signal 617 - Derail located at mile 334.2 Flint Sub.

Westward signals 591D from “C” Yard lead, and 591S2 from “C1” lead - Derails located at mile 59.1. Due to rusty rail conditions, dual control split rail derail No. 13 on C1 lead at Hobson must be placed in hand position and lined for the route to be used. Switch must not be restored to power position until the entire movement has cleared the switch points.

Rule 104.2 Track Units, Port Huron/Hobson - Track units operating under the direction of a conductor or Track Units under the direction of a Foreman must be governed as follows prior to moving over dual control split rail derail mile 334.2 Flint Sub, dual control split rail derails mile 59.1 Strathroy Sub, and dual control switch to Point Edward Spur mile 59.3:

The Conductor or Foreman must operate these switches in “hand” position and not restore them to the “power” position until all track units have moved off the switch.

TUNNEL CONTROL SYSTEM

The Tunnel Lighting System is normally left in off position, a request from an employee may be made to the RTC to have the lights turned on. It should be noted that it takes several minutes for lights to attain full power. Bridges and Building personnel also have the ability to turn lights on or off from their control station. Employees entering the tunnel must bring a suitable light source.
The Tunnel Ventilation Fan System is operational after occupation of the tunnel by a train. If a train travels slowly or stops in the tunnel, the fans will automatically start blowing against the direction of the train's passage. Other employees may request that the RTC turn maintenance fans on or off. Bridges and Building personnel also have the ability to turn fans on or off from their control station.

**TUNNEL EMERGENCY PROCEDURES**

In the event of an Emergency in the Tunnel, the following procedures must be followed:

When a movement is stopped by an emergency application of air brakes entering or exiting the tunnel, an employee must initiate an emergency call, giving identification and location, stating that the movement is stopped in emergency.

Crew members on movements disabled within the tunnel must immediately contact the RTC and be governed by instructions received.

Do not enter the tunnel unless:

- The RTC confirms it is safe to do so, and
- The strobe light and horn located at the entrance are not active.

When inside the tunnel, maintain frequent communication with the locomotive engineer or the RTC. If radio communications fail or become garbled, exit the tunnel immediately.

In the event a movement is stopped or disabled within the tunnel, the cause for such stop must be determined and repairs, if necessary, made prior to any further movement being commenced. Every precaution must be taken to prevent unintentional movement.

If necessary to perform emergency work under or about such movement, the locomotive engineer must place the automatic brake valve in the emergency position. Such handle must be left in the emergency position until contact has been made with all members of the crew. If a portion of the train is left standing on the grade, handbrakes must be applied to the remaining equipment to prevent it from moving.

Should a movement carrying loaded cars, trailers, containers of dangerous goods or tank cars containing residue of dangerous goods become disabled within the tunnel due to an emergency application of the brakes, extreme caution must be exercised. In case of doubt or uncertainty as the presence of a hazard, the safe course must be taken and employees must immediately evacuate the tunnel avoiding the hazard area. All documentation pertaining to the movement should accompany the train crew and the RTC must be advised when members of the crew clear the tunnel.

If a train is on fire and must stop in the tunnel, the ventilation system is capable of controlling the direction of smoke travel. The train crew must notify the RTC that fire exists and advise which direction to blow the fans, taking into account the location of the fire and the location of the train in the tunnel. Employees and/or passengers should be directed to evacuate the tunnel in the direction opposite to the fan direction.

**TRAIN HANDLING INSTRUCTIONS**

All trains should approach the Tunnel crest (Hobson for Westward movements; 16th Street Port Huron for eastward movements) not exceeding 15 mph.

Distributed Power trains should be operated in DP synchronous mode (without the DP fence up) starting down the descending grade towards the tunnel entrance. The DP operations screen should be on the Control Menu level with the MOVE TO BACK key visible as it will be utilized later.

On all trains Lead locomotive throttle should be placed in Idle or RUN 1 passing the tunnel crest on the descending grade allowing the train to slowly build speed descending the grade.

Traveling the descending grade, the speedometer and accelerometer should be closely monitored.

On DP Trains the MOVE TO BACK key should be pressed to put the DP fence up before the Lead locomotive enters the tunnel. At that time use the LESS TRACTION key to reduce DP Remote throttle to Idle, if it is not already in Idle.

When the Lead locomotive arrives at the bottom of the tunnel (MP 60.6), start the footage counter and then as the train begins to start up the ascending grade quickly advance the Lead locomotive throttle one notch at a time.

On DP trains, use the footage counter to judge when the DP Remote consist reaches the bottom of the tunnel. At that time begin to use the MORE TRACTION and LESS TRACTION keys to maintain DP Remote throttle 2 positions less than the Lead locomotive throttle position. (For example, if Lead locomotive throttle is in Position 5, have DP Remote throttle in Position 3; if Lead locomotive throttle is moved to Position 6, then move DP Remote
throttle to Position 4, etc.)

On all trains, when cresting the grade closely monitor the counter to know exactly where the rear of the train is located. As the rear of the train begins ascending reduce the Lead throttle to Position 6 or lower to reduce the RUN OUT DRAFT FORCE produced as the rear of the train begins ascending the grade.

On DP trains, maintain DP Remote throttle 2 positions less than Lead locomotive throttle until the DP Remote reaches the crest or reduction of throttle is required to control train speed. At that point press the MOVE TO FRONT key to remove the DP fence and DP Remote throttle will step up or down to match the Lead locomotive throttle setting.

NOTE: if there is more than one locomotive in the DP Remote consist, follow the same procedure but maintain DP Remote throttle 3 positions less than the Lead locomotive throttle position.

AIR BRAKES - HOBSON - PORT HURON

Air Brakes must be in service on all movements in the tunnel.

2.3 PORT HURON

CANADIAN CREWS OPERATING IN THE US.

502. SHOVING MOVEMENTS

Before shoving equipment, unless the engineer is positioned to visually protect the point of movement such as lite locomotive consist with a slug on the leading end, a job briefing must be conducted between the engineer and the employee directing the shove which will include:

- Means of communication to be used (only required when using non-radio communication),
- Type of point protection to be provided, and
- Specified distance and direction

Point protection must be provided by one of the following methods:

1. Employee riding the leading end of the movement positioned to observe the track to be used.
2. Employee, taking a stationary position on the ground in advance of the movement and not inside a vehicle, who can see the point of the movement and track to be used during the duration of the shove.
3. Employee monitoring a camera or other technology when:
   - Portion of track has no intervening switches/derails, and
   - Visibility is not restricted

EASTBOUND TRAIN INSPECTIONS

Eastbound trains at Port Huron will be inspected prior to entering the Sarnia-Port Huron Tunnel. Inspections will occur at either Tappan or Port Huron by either a Michigan or Great Lakes Division crew. If such inspection does not occur at either Tappan or Port Huron, roll-by will be performed by the incoming CN crew, who will remain on duty 45 mins after their arrival at MacGregor to perform such inspection. Results of such inspections will be conveyed to the outgoing crew by means of radio communication, a Cabooseless Train Inspection Report, or other suitable form which will be filled in by the incoming Michigan Zone Crew. If unable to be inspected as per above, outgoing train crew will perform such inspection at MacGregor.

VEHICLE AND CARGO INSPECTION SYSTEM

Vehicle and Cargo Inspection Systems (VACIS) are located just west of Modeland Rd. Overpass at Mile 56.7, and just west of MacGregor Rd. mile 57.9 These VACIS systems are operated by United States Customs and Border Patrol (CBP) and will scan all Westward freight trains. The CBP inspectors at the site will be in contact with CN crews to ensure proper and safe operations at all times.

Instructions for trains requiring VACIS scanning at Sarnia

All Westward freight trains operating on the main track destined through the tunnel will be scanned by the VACIS scanner located at Mile 56.7. The VACIS CBP inspector must be contacted on CN Channel 6 prior to passing Mandaumin advising of their ETA at the scanner, and ascertain that they will be ready to scan the train upon arrival at the scanner location. If the VACIS CBP inspector cannot be contacted, crews will obtain instructions from the RTC.

All Westward freight trains departing Sarnia Yard via the “A” yard access track at MacGregor will be scanned by
the VACIS scanner located at Mile 58.0. Prior to contacting the RTC and requesting the signal to depart, the VACIS CBP inspector must be contacted on CN Channel 6 to ascertain that they will be ready to scan the train upon arrival at the scanner location.

The train crew must advise the VACIS CBP inspector if employees are present in any trailing locomotives (e.g. deadheading crew) so that the operator does not start the scanning until the engine consist has gone by. In all cases, scanning of the train will not commence until the leading engine has passed the VACIS scanning location.

All trains must maintain a speed of between 5 and 10 mph (as directed by the CBP inspector) while passing the VACIS scanner while in operation.

The VACIS machine has three levels of operation:

**Green Flashing Light** - Indicates that the VACIS machine is not operating.

**Yellow Flashing Light** - Indicates that the VACIS machine is ready for operation and may be activated by the CBP inspector once safe operation is confirmed.

**Red Flashing Light** - Indicates that the gamma source is open and VACIS screening is taking place.

During the scanning process, the VACIS CBP inspector may contact the train crew directly with further instructions as may be required.

Note: Westward trains destined to Port Huron which have been scanned by the VACIS and for any reason stop prior to entering the Paul Tellier tunnel, must immediately contact US Customs Border Patrol on channel 6 and advise why they are stopped (e.g. Broken train line, trespasser etc.).

### 3.0 SPURS AND OTHER TRACKS

#### 3.1 Rule 103.1 (f) (Rusty Rail Conditions)

Applicable at all Public Crossings at Grade protected by Automatic Warning Devices on all tracks other than Main track.

#### 3.2 Unless otherwise indicated, maximum speed on all non-main tracks 10 mph

#### 3.3 LONDON WEST STATION TRACKS - Mile 0.1

The 3 tracks numbered from the north AL01, AL02, and AL03, known as Station Tracks Nos 1, 2, and 3.

Freight movements must not operate over station tracks without authorization from a company officer. In addition, units in classes GF 636, GF 638, GF 640, GF 643, EF 640 and EF 644 must not operate under canopy on any station track due to height restriction.

Movements handling dimensional loads of D1R or greater must not operate on station tracks.

Employees must not ride on sides of cars or engines on these tracks.

### Mile 77.8 - BURWELL ST.

Controlled location on track AL01 with dual control switch leading to tracks AL02 and AL03.

Eastward movements proceeding on Station Track No. 1, after having been stopped by a stop signal at signal 778D Burwell St., or movements entering Station Track No. 1 from Station Track No. 2 at signal 778D1 Burwell St. must not exceed 30 mph until Colbourne St. public crossing mile 77.66 fully occupied.

Track AL01 (signalled track)

Track AL02 (Non signalled track) Special derails located at both ends.

Track AL03 (Non signalled track)

Permission from the RTC must be obtained to enter track AL03. Switch is normal when lined for No. 2 station track.

**Hand Operated Switch Ridout**

A hand operated switch allowing access to either track AL02 or AL03 is located within the Ridout controlled location just east of Dual control switch No.9. Switch is normal when lined and locked for track AL02.

**Eastward movements** signalled from Ridout and instructed to use track AL03 must stop short of this switch and line it for track AL03. Switch must be returned to normal when movement has cleared the switch.

**Westward movements** exiting track AL03 will not get a permissive signal at 01D3 until the switch is manually lined for track AL03. Permission must be obtained from the RTC prior to lining the switch, and the switch must be returned to normal position after the movement has cleared the switch.

**All movements operating under Rule 564 authority to or from track AL03** must in addition, manually line this switch and return it to normal position after the movement has cleared the switch.
## 3.4 STRATHROY SERVICE TRACK (Track SA56) - Mile 21.5

Removed from service and switch secured with private locks.

### PUBLIC CROSSINGS AT GRADE

Mile 20.39 Track SA56 (Victoria street) - AWD. Stop signs on both sides of crossing.

## 3.5 KERWOOD SERVICE TRACK (Track SB30) - Mile 25.7

- Extends from a hand operated switch within the controlled location Kerwood. CTC applicable between signals 257N and 258N

Normal position for this switch is when set for the diverging route i.e. North track to single track. Movements required to use this track will be governed by the following:

### EQUIPMENT RESTRICTIONS

6-axle units are restricted from operating within the extreme curvature on Track SB31 at Kerwood. If necessary to switch this location with a 6 axle unit in the consist, at least 8 reachers no greater than 80 feet in length must be used to ensure the 6-axle unit does not enter the curve.

**To enter:** Movement must stop at signal 257N, and receive permission from the RTC. A member of the crew will then reverse the hand throw switch and be governed by indication on signal 257N.

**Note:** While occupying the service track, switch may be left lined and locked in either position if authorized to do so by the RTC.

If switch is to be normalled, it must not be normalled until the movement has cleared the controlled location.

**To exit:** If switch is reversed, movement will be governed by signal 258N. If switch has been normalled, permission from the RTC must be obtained to enter the North track. When permission has been granted, switch may be reversed and movement governed by signal 258N. Switch must then be left lined and locked for normal position.

Equipment is not to be stored west of switch to track SB-35.

### PUBLIC CROSSINGS AT GRADE

Mile 26.15 Track SB30 (Cockburn St.) - AWD. Stop signs located on both sides of crossing.

## 3.6 WATFORD SERVICE TRACK - Mile 33.64

Switch Mile 33.64 out of service and spiked.

## 3.7 WANSTEAD SERVICE TRACK (Track SB50) - Mile 41.4

- Extends from a hand operated switch within the controlled location Wanstead. CTC applicable between signals 413N and 414N

Normal position for this switch is when set for the diverging route i.e. North track to single track. Movements required to use this track will be governed by the following:

**To enter:** Movement must stop at signal 413N, and receive permission from the RTC. A member of the crew will then reverse the hand throw switch and be governed by indication on signal 413N.

**Note:** While occupying the service track, switch may be left lined and locked in either position if authorized by the RTC.

If switch is to be normalled, it must not be normalled until the movement has cleared the controlled location.

**To exit:** If switch is reversed, movement will be governed by signal 414N. If switch has been normalled, permission from the RTC must be obtained to enter the North track. When permission has been granted, switch may be reversed and movement governed by signal 414N. Switch must then be left lined and locked for normal position.

### PUBLIC CROSSINGS AT GRADE

Mile 41.73 Track SB50 (Wanstead Rd.) - AWD. Stop signs located on both sides of crossing.

## 3.8 WYOMING SERVICE TRACK (Track SB59) - Mile 46.3

**Track SB59 Mile 46.27,** removed from service and switch secured with private locks.

### PUBLIC CROSSINGS AT GRADE

Mile 45.18 Track SB61 (Broadway St.) - AWD. Stop signs located on both sides of crossing.

## 3.9 EASTWARD DEPARTURE TRACK - Mile 55.8

Westward movements and track units entering Sarnia yard must not pass beyond the PPZ stop sign located just east of the farm crossing mile 56.15, unless permission has been received from the Sarnia Yard Coordinator.
### 3.10 SARNIA RUNNING TRACK - Mile 56.3

Former Sarnia Yard track A04, which runs directly south of the main track between Modeland and MacGregor.

This track is not signalized. Rule 105 applies.

Permissive signal indication to enter the Sarnia Running Track does not reflect any track condition, status of occupancy or advance information of signal displayed at the other end.

**MAXIMUM SPEED:** 25 mph

Signalled entry from the east end, for through movements, is at controlled location at Modeland.

Signalled entry at the west end is via the controlled location at MacGregor.

Rules 41/841 and Rule 105 (c) - Not applicable.

Rules 803 and 804. Foreman must obtain a TOP to occupy or work in the running track.

**Leaving Equipment:**

The RTC must be notified before leaving any equipment on the Sarnia Running Track. The RTC will then provide blocking on such track until the track is reported clear of equipment. Before permitting a train or engine to enter the Sarnia Running Track when occupied by other equipment, the RTC must advise a member of the crew that the track is occupied by other equipment.

### 3.11 SARNIA WYE TRACKS - Mile 57.2

All Semi-automatic switches connecting to the Sarnia Wye tracks are to be used as hand throw switches. They must not be trailed through without first being lined for the route to be used.

### 4.0 INTERLOCKINGS

#### 4.1 Railway crossing at grade. (Melrose)

Mile 12.2 (CP Rail Windsor Sub). Automatic

Rule 564 and 611 is applicable.

In the application of Rule 611, the waiting time after opening the knife switch is increased to 10 minutes.

**Track Units**

In addition to obtaining permission from the CN RTC, track units required to operate through the interlocking must obtain permission from the CP RTC prior to applying Rule 806(b). In the application of Rule 806 (b), the waiting time after opening the knife switch is increased to 10 minutes.

CP RTC Phone No. 403-806-4362 or CP CH 14 (AAR 1571).

### 5.0 PUBLIC CROSSINGS AT GRADE

#### 5.1 Rule 14 (l)(iv) Anti-whistling – Whistle signal is prohibited at public crossing at grade:

- between mile 0.0 and mile 4.1
- mile 10.67
- mile 10.95
- between mile 18.69 and mile 21.2 from 23:00 to 06:00.

#### 5.2 Mile 14.81 (Aberdeen Rd. Side Rd. 20) - AWD.

Eastward movements stopping at signal 148 must stop clear of the circuit sign located 200 feet west of crossing.

#### 5.3 Mile 19.85 (Caradoc St.) - AWD.

Timing circuit west of crossing. Extends east of Metcalfe street and crossing circuit sign located approximately 400 feet west of Caradoc St.

Eastward trains stopping at Strathroy station must stop clear of the crossing circuit sign. When movement resumes, do not exceed 5 mph until crossing occupied.

#### 5.4 Mile 20.04 (Metcalfe St.) - AWD.

Timing circuit east of crossing. Extends east approximately 500 feet to the timing circuit sign.

Westward movements stopped at Strathroy station must operate the push button located east of the crossing before proceeding over the crossing.

#### 5.5 Mile 22.70 (School Rd.) - AWD.

Westward movements stopping at signal 227 must stop clear of the crossing circuit sign 200 ft. east of crossing.
5.6 Mile 35.35 (First School Rd.) - AWD. Westward movements stopping at signal 355 must stop clear of the crossing circuit sign 200 feet east of crossing.

5.7 Mile 50.97 (Mandaumin Rd.) - AWD. Westward movements stopping at signal 509 must stop clear of the crossing circuit sign 200 feet east of crossing.

5.8 Mile 55.53 (Blackwell Side Rd.) - AWD. Westward movements stopping at signal 555N or 555S must stop clear of the crossing circuit sign 120 feet east of signal

6.0 DETECTORS AND WARNING SYSTEMS

6.1 Derailment detectors
   - Mile 59.2

7.0 SPECIAL ZONES

7.1 SPECIAL DANGEROUS COMMODITIES
   Do not exceed 35 mph between mile 0.0 and mile 7.2.

   **EASTWARD MOVEMENTS:**
   Must be inspected at mile 7.2.
   Unless inspected at mile 326.0 Flint Sub. or mile 48.6 Mount Clemens Sub, Do Not Exceed 35 mph between mile 60.4 and mile 50.9

   **WESTWARD MOVEMENTS:**
   Must be inspected at mile 47.5.

7.2 KEY TRAINS AND HIGHER RISK KEY TRAINS
   Key Trains and Higher Risk Key Trains are speed restricted as per Dangerous Goods 9.0 (c) between:
   - Mile 0.0 and Mile 28.5

7.3 KEY ROUTE
   Key Route – Dangerous Goods 9.0(d) applicable.
8.0 **SPEEDS**

8.1 Passenger trains: Unless otherwise specified, only passenger trains entirely made up of VIA equipment can operate at passenger speed. Trains handling any other passenger car or locomotive must operate at freight speed.

8.2

<table>
<thead>
<tr>
<th>Mile</th>
<th>Zone</th>
<th>MPH</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0 to 55.6 Zone</td>
<td>80</td>
<td>60</td>
</tr>
<tr>
<td>0.0 to 0.4 PSQ</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>0.3</td>
<td>Eastward approaching signal 04N/S</td>
<td></td>
</tr>
<tr>
<td>0.4</td>
<td>Movements handling loaded ore cars</td>
<td></td>
</tr>
<tr>
<td>12.0 to 12.56 until xing (Amiens Rd.) occupied</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>12.2</td>
<td>Railway crossing at grade</td>
<td>30</td>
</tr>
<tr>
<td>14.81</td>
<td>Westward movements from north track until crossing occupied</td>
<td>45</td>
</tr>
<tr>
<td>19.8</td>
<td>Eastward movements stopping west of insulated joint marked by yellow paint, 400 west of Caradic St. and then proceeding over xing, until xing occupied.</td>
<td>5</td>
</tr>
<tr>
<td>20.19</td>
<td>Westward movements stopped at Strathroy station until crossing occupied</td>
<td>30</td>
</tr>
<tr>
<td>35.35</td>
<td>Eastward movements from north track, until crossing occupied</td>
<td>45</td>
</tr>
<tr>
<td>41.73</td>
<td>Westward movements from north track, until crossing occupied</td>
<td>45</td>
</tr>
<tr>
<td>50.97</td>
<td>Westward movements from north track, until crossing occupied</td>
<td>45</td>
</tr>
<tr>
<td>55.5</td>
<td>Westward approaching signal 55N/S</td>
<td></td>
</tr>
<tr>
<td>55.6 to 59.1 Zone North and Main Tracks</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>55.6 to 56.4 Zone South Track</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>57.6 to 59.1 Zone South Track</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>57.9</td>
<td>Westward movements routed from Sarnia Running Track signal 575S until crossing occupied</td>
<td>35</td>
</tr>
<tr>
<td>59.1 to 61.7 Zone</td>
<td>60</td>
<td>60</td>
</tr>
</tbody>
</table>

**Cold Weather Speed Restrictions**

<table>
<thead>
<tr>
<th>Temp Range</th>
<th>Freight Trains</th>
<th>Higher Risk Key Trains</th>
<th>Passenger Trains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmer than -25C</td>
<td>--</td>
<td>50 mph</td>
<td>30 mph</td>
</tr>
<tr>
<td>-25C to -29C</td>
<td>40 mph (1)</td>
<td>50 mph</td>
<td>25 mph</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 mph (1)</td>
<td>60 mph (1)</td>
</tr>
<tr>
<td>-30C or colder</td>
<td>40 mph</td>
<td>40 mph</td>
<td>25 mph</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 mph (1)</td>
<td>60 mph</td>
</tr>
</tbody>
</table>

(1) Between mile 20 and 31  
North/Main
## Hot Weather Speed Restrictions

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Freight Trains</th>
<th>Passenger Trains</th>
<th>Applicable</th>
</tr>
</thead>
</table>
| 30C or Warmer    | - If Timetable Zone and PSO speed is **above** 60 mph, **reduce to 50 mph**  
                  | - If Timetable Zone and PSO speed is **below** 60 mph, **reduce by 10 mph** and in no case reducing to less than 40 mph  
                  | - If Timetable Zone and PSO speed is **above** 60 mph, **reduce by 15 mph** and in no case reducing to less than 60 mph  
                  | Exception: does not apply to permanent slow orders that have the mention: “approaching signal” or “until crossing occupied”.  
                  |                        |                          | Entire subdivision          |
| 30C or Warmer    | 40 mph                  | 60 mph                   | Between mile 18 and mile 22.7 |

Temperature 30C or Warmer:

- If Timetable Zone and PSO speed is **above** 60 mph, **reduce to 50 mph**
- If Timetable Zone and PSO speed is **below** 60 mph, **reduce by 10 mph** and in no case reducing to less than 40 mph
Exception: does not apply to permanent slow orders that have the mention: “approaching signal” or “until crossing occupied”.

- If Timetable Zone and PSO speed is **above** 60 mph, **reduce by 15 mph** and in no case reducing to less than 60 mph
Exception: does not apply to permanent slow orders that have the mention: “approaching signal” or “until crossing occupied” or “Wheel impact load detector”.
## Method of Control

<table>
<thead>
<tr>
<th>Number of Tracks</th>
<th>Flint Subdivision</th>
<th>MILE</th>
<th>Division Standby Channel (End to End)</th>
<th>Division Standby Channel (End to End)</th>
<th>Wayside Inspection System</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jct. With Strathroy Sub.</td>
<td>334.31</td>
<td>334.31</td>
<td>CN C6</td>
<td>C148</td>
</tr>
<tr>
<td></td>
<td>PORT HURON</td>
<td>334.05</td>
<td>334.05</td>
<td>or T1</td>
<td>or T1</td>
</tr>
<tr>
<td>4</td>
<td>32nd STREET (Track 1)</td>
<td>333.34</td>
<td>333.34</td>
<td>GT1 AAR</td>
<td>7474</td>
</tr>
<tr>
<td></td>
<td>TAPPAN</td>
<td>332.1</td>
<td>332.1</td>
<td>AAR 7474</td>
<td>0-0-8</td>
</tr>
<tr>
<td></td>
<td>Jct. With Mt. Clemens Sub.</td>
<td>332.39</td>
<td>332.39</td>
<td>T2</td>
<td>T2</td>
</tr>
<tr>
<td></td>
<td>WEST TAPPAN</td>
<td>329.0</td>
<td>329.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See CN Michigan division Time Table for remainder of subdivision.

### Subdivision Control Features

- CTC between Port Huron and Tappan controlled by RTC Edmonton
- CTC at and between Tappan & West Tappan controlled by RTC Homewood

### 1.0 Applicable on Subdivision

#### 1.1 Rules in Effect

**CROR:** CN Canadian Rail Operating Rules applicable between westward signal at Tappan mile 332.4 and Port Huron.

In addition to the CROR, the following US Rule(s) apply:

**ABTH Rule 309. Undesired Brake Release**

Crews must monitor the brake status and should not expect a service rate or emergency brake application to indefinitely maintain the application of a train’s air brakes.

The following is required to maintain the braking application for a train and/or undesired release:

1. Crews must closely observe the end-of-train brake pipe pressure and flowmeter. Unexpected air flow may be an indication of an UDR of the train brakes. In this event, make a further application of the automatic brake, until a positive reduction is achieved from the rear of the train to control the movement. An emergency application may be required.

2. If a train is stopped with air brakes set, and the train begins moving, the crew should immediately apply the emergency brake. After the train is stopped, the crew should set a sufficient number of handbrakes to secure the train from further unintended movement before releasing the brakes and recharging the train’s air brake system. When this application is required, crews are to comply with Handbrake Chart outlined in USOR 602 and apply the required number of handbrakes specified in the chart based on trailing tonnage and grade.

**Note:** When securing handbrakes during an emergency brake application a proper handbrake testing requirements per ABTH 502, cannot be achieved.

**Note 2:** When referring USOR 602, Canadian crews are to apply to CROR 112 (g). ABTH 502 is the requirement for testing the handbrakes effectiveness.

**USOR** Operating Rules applicable at and between Westward signals Tappan mile 332.4 and West Tappan.
1.2 CROR Rule 119(a) - In the application of this rule, the designated standby END TO END channel between Tappan and Port Huron is CN CH6 (AAR 7925). West of Tappan, the designated standby channel is GT1. (AAR3232)

1.3 CROR Rule 156/157 - DOB/TGBO
   Between mile 329.0 and 332.4 - DOB/TGBO from RTC Homewood
   Between mile 332.4 and 334.2 - DOB/TGBO from RTC Edmonton

1.4 Track Designation
   Tracks 1, 2, and 3 between Pt, Huron and Tappan begin west of signals 3340T1, T2, and T3. Trackage east of these signals is referred to as Main track. The southern most track at Pt. Huron between signal 3338T4 and the cantilever signal mast for signals 3340T1, T2, and T3 is referred to as No. 4 track.

1.5 Rule 104.2 and 564 Port Huron - Movements operating under CROR Rule 564 authority from eastward signals 3340T1, 3340T2, 3340T3, 3340T4, or westward signal 617 will be governed by CROR Rule 104.2 at Dual Control split switch derail located at mile 334.2.

1.6 Rule 104.2 Track Units, Port Huron - Hobson - Track units operating under the direction of a conductor pilot or under the direction of a Foreman must be governed as follows prior to moving over dual control split rail derail mile 332.4 and dual control switch to Point Edward Spur mile 59.3 Strathroy Sub.

   The Conductor or Foreman must operate these switches in “hand” position and not restore them to the “power” position until all track units have moved off the switch.

1.7 Signal Indicating Stop - Tappan
   Westbound - Authority to pass all westward signals at Tappan will be issued by the Train Dispatcher Homewood in accordance with USOR Rule 844.
   Eastbound - Trains operating to Tunnel Yard or to CSX will obtain authority to pass eastward signals 4E, 6E, and 10E at Tappan from the Train Dispatcher Homewood in accordance with USOR Rule 844.
   Through trains to Flint Sub, after Train Dispatcher Homewood obtains permission from the Edmonton RTC, authority to pass eastward signals 4E, 6E, and 10E at Tappan will be given by RTC Homewood in accordance with USOR Rule 844.

   Note: Movements will be governed by CROR Restricted speed east of signals 4W, 6W, and 8W, at Tappan.

1.8 EQUIPMENT RESTRICTIONS
   Cars exceeding 315,000 Lbs. gross must be covered by special handling instructions.

2.0 STATIONS

2.1 TAPPAN
   CROR qualified employees may operate between Tappan and West Tappan on the Flint Subdivision or Tappan and Ash on the Mount Clemens Subdivision provided:
   • a permissive signal is received at Tappan;
   • all westward movements are made as per the provisions of CROR Restricted Speed;
   • the crew is in possession of the Detroit Terminal DOB; and
   • if necessary to pull west of Michigan Road to set headend over into Tunnel Yard, cut is made at least 300 feet clear of the crossing.
   • When operating towards Mount Clemens, be in possession of the Mount Clemens Subdivision.
   Canadian crews are not required to initialize PTC.

   Unattended Locomotives.
   When leaving unattended Locomotives on the Flint Sub, the following requirements must be followed in addition to those found in the General Operating Instructions.

   A hand brake must be applied on EACH locomotive in the headend consist. Only the controlling locomotive is required to be locked.

2.2 PORT HURON
   All incoming crews of eastbound trains at Port Huron must check fuel levels and report them to the outgoing crew. The outgoing crew must then report this to the the RTC prior to departing Port Huron.
Hand Brake Requirements - The following location(s) requiring a specific number of handbrakes on the following tracks when leaving equipment unattended:

<table>
<thead>
<tr>
<th>Location</th>
<th>Tracks</th>
<th># of cars</th>
<th>Minimum # of Handbrakes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Huron</td>
<td>WH10 - WH20, WH27, WH42, WH66</td>
<td>1 or more</td>
<td>1</td>
</tr>
</tbody>
</table>

3.0 SPURS AND OTHER TRACKS - NIL

4.0 INTERLOCKINGS - NIL

5.0 PUBLIC CROSSINGS AT GRADE

5.1 Activated by a controlled signal (See USOR Rule 530)
   - Mile 332.2 Michigan Road
   - Mile 329.1 Wadhams Road

5.2 Mile 334.30 (16th St.) Warning devices

USOR Rule 529 applicable at this crossing. CROR Form V examples 4 and 5 not applicable.

 Movements will be notified by written message if an “Activation Failure” or “False Activation” is present at this crossing.

 E.g. "Activation Failure at Public Crossing at Grade mile 334.3 Flint sub. Be governed by instructions from trainmaster John Smith"

 Eastward movements must then not proceed beyond signal 3340 T1, 2, or 3, or signal 3338T4 at Pt. Huron, and Westward movements must not proceed beyond signal 591 N, S, S1, or S2 or signal 591D at Hobson until instructions have been received from the employee at the crossing named in the message.

529. ACTIVATION FAILURE/FALSE ACTIVATION.

Employees must observe all automatic crossing warning devices and report any that are malfunctioning to the RTC or proper authority by the first available means of communication.

A. ACTIVATION FAILURE. When notified of an activation failure:

Stop before entering crossing.

Proceed only on signal from employee at the crossing.

EXCEPTIONS: If there is one properly equipped flagman available, proceed into crossing not exceeding 15 mph until the crossing is completely occupied. Then proceed at normal speed. If there are enough properly equipped flagmen to provide warning for each direction of vehicular traffic, or at least one uniformed law enforcement officer at the crossing, movement may proceed at normal speed through the crossing.

B. FALSE ACTIVATION. When notified of a false activation:

Proceed into the crossing not exceeding 15 mph until the crossing is completely occupied. Then proceed at normal speed.

If shoving, crossing must not be occupied until warning has been provided to vehicular traffic by an employee on the ground at the crossing.

EXCEPTION: If there is a properly equipped flagman available to provide warning for each direction of vehicular traffic or at least one uniformed law enforcement officer, movement may proceed through the crossing at normal speed.

In either case of Activation Failure or False Activation, whistle signal 410(7) (CROR Rule 14(I)) must be sounded regardless of any Locomotive Whistle Quiet Zone.

When advised by a signal employee at the crossing or the RTC that the malfunction has been repaired, these instructions will no longer apply.

6.0 DETECTORS AND WARNING SYSTEMS

6.1 Derailment Detector
   - Mile 331.2

7.0 SPECIAL ZONES - NIL
## 8.0 SPEEDS

<table>
<thead>
<tr>
<th>Maximum Speeds</th>
<th>(MPH)</th>
<th>Track(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mile 334.31 and Mile 332.1</td>
<td>45</td>
<td>60</td>
</tr>
<tr>
<td>Mile 334.31 and Mile 333.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mile 333.3 and Mile 332.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main2</td>
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<td>Main 3</td>
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<td>Psgr Frt</td>
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<td>Mile 332.1 to mile 329.0</td>
<td>60</td>
<td>60</td>
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<td>Movements through crossover at Tappan</td>
<td></td>
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<tr>
<td>Method of Control</td>
<td>W</td>
<td>E</td>
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<tr>
<td>CTC</td>
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<tr>
<td>RAINY RIVER</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>BAUDETTE</td>
<td>1.6</td>
<td>6857</td>
</tr>
<tr>
<td>GRACETON</td>
<td>11.3</td>
<td>10117</td>
</tr>
<tr>
<td>WILLIAMS</td>
<td>17.8</td>
<td>6700</td>
</tr>
<tr>
<td>BLUEBERRY</td>
<td>22.9</td>
<td>10303</td>
</tr>
<tr>
<td>SWIFT</td>
<td>31.7</td>
<td>6674</td>
</tr>
<tr>
<td>WARROAD</td>
<td>38.4</td>
<td></td>
</tr>
<tr>
<td>LONGWORTH</td>
<td>43.6</td>
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<tr>
<td>INTERNATIONAL BDY</td>
<td>45.0</td>
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</tr>
<tr>
<td>MIDDLEBRO</td>
<td>46.3</td>
<td>10378</td>
</tr>
<tr>
<td>SPRAGUE</td>
<td>56.9</td>
<td>9690</td>
</tr>
<tr>
<td>VASSAR</td>
<td>69.3</td>
<td>13529</td>
</tr>
<tr>
<td>CARRICK</td>
<td>83.1</td>
<td>12413</td>
</tr>
<tr>
<td>BAYNHAM</td>
<td>94.3</td>
<td>10320</td>
</tr>
<tr>
<td>BEDFORD</td>
<td>99.6</td>
<td></td>
</tr>
<tr>
<td>LA BROQUERIE</td>
<td>113.0</td>
<td>6593</td>
</tr>
<tr>
<td>GIROUX</td>
<td>119.2</td>
<td>10581</td>
</tr>
<tr>
<td>DUFRESNE</td>
<td>130.9</td>
<td>6690</td>
</tr>
<tr>
<td>LORETTE</td>
<td>138.2</td>
<td>10300</td>
</tr>
<tr>
<td>NAVIN</td>
<td>144.9</td>
<td></td>
</tr>
</tbody>
</table>

1 APPLICABLE ON SUBDIVISION

a. Sidings
   I. Siding Control Territory
   II. Signalled Sidings
      Baudette, Graceton, Swift, Middlebro, Sprague, Vassar, Carrick, Baynham, Giroux, Lorette, Blueberry

b. Operating between 1.0 and Mile 45.0 (USA)
   a. Rule 13 - The engine bell must be rung for all public crossings at grade and when approaching and passing Roadway Workers within the USA.
   b. Rule 14 - Whistle Failure - Applicable within the USA only
      In the event of whistle failure the following is in addition to the CROR requirements:
      Ring the bell continuously approaching and passing stations, yards, and public crossings at grade. If the
whistle on a trailing locomotive can be used, the conductor or other qualified employee will use that whistle under the direction of the locomotive engineer. If no other whistle is available, stop the train before each public crossing, place a crew member on the ground at the crossing to provide warning until the crossing is occupied, unless:

I. Crossing gates are in the fully lowered position, or
II. No traffic is approaching, or traffic is stopped at the crossing.

Engineer Whistle Signal __ o (one long, one short) must be sounded approaching Roadway Workers or roadway equipment on or near the track, regardless of any whistle prohibition. After the initial warning, sound whistle signal 14 (b) o o (2 short), intermittently until the head end of the movement has passed the Roadway Workers or equipment.

FRA Exemption - lighted or flashing marker not required on Sprague Subdivision within the United States.

c. **Rule 115 and Restricted Speed**

Rule 115 (b) Known to be clear is not applicable. When shoving, there must be a crew member providing point protection at all times. Movements must be able to stop within one-half the range of vision of:

- Equipment
- Foreman or track units fouling the track
- Switches or derails not properly lined

d. Trains handling PIH/TIH must not exceed 40 MPH

Must also be on the lookout for broken rail and not exceed 20 MPH

e. When advised by the RTC to provide protection as per Rule 103 (g), crews must ALWAYS STOP prior to the crossing and provide the manual protection from a position on the ground at the crossing. When manually protecting, Rule 14(l) must be sounded.

c. All movements must initiate a radio broadcast approaching Canada Customs.

d. Baudette / International Boundary Personal Documentation Requirements

I. US Social Security Card
II. Birth Certificate
III. Valid driver’s license
IV. Passport
V. Work visa for Non-Canadian citizens

Trains Operating into US Territory: All train and engine crew personnel must be cleared by the United States Immigration Service before working in or through the United States. Train crews should be prepared to spot their trains at border locations for customs inspection when requested.

When cars are set-out en route in the State of Minnesota, the conductor will be required to give a copy of the train journal, indicating set-off, to the American Customs office at the port of entry.

When empty or loaded cars in transit are set-out in the State of Minnesota due to hot box, car defect, locomotive failure, or other unforeseen circumstances, the conductor will be required to give a copy of the train journal, indicating set-off, to the next American and Canadian Customs offices.

No traffic will be lifted en route unless authorized by switch list and/or message. Such traffic will have corresponding documentation completed prior to leaving originating terminal and will be so noted on the required customs documentation.

Conductors engaged in pick-up or set-out service in the United States will be required to complete Customs Form CN 9514-revised 12/97, for delivery to Canada and United States customs as per instructions on form CN 9514-revised 12/97.

Trains will be required to stop at customs points to accommodate notification of work performed or to be performed, and presentation of customs documents.

Movements that have picked up cars in the State of Minnesota destined to U.S. or Canada points must stop at the next American and Canadian Customs offices and deliver required documentation, and affix in-transit seals as required.

Auxiliaries and work or emergency trains are not to be considered through or in-transit trains and must stop at
the Customs and Immigration offices for complete inspection. Roster indicating personnel of auxiliary, road repair truck, etc. must be prepared to assist Immigration Officers.

Auxiliary and work trains must stop for Customs and Immigration Inspection at both offices when entering and again when leaving the United States. Employee in charge of auxiliaries, road repair cars, etc. must have a list of contents indicating their value.

Gangs moving through the United States are not permitted to pass through on in-transit trains.

Gangs when moving through the United States on other than in-transit trains may have personnel remain in their cars and be admitted after inspection and satisfaction of entry requirements.

Advance notification of employee nationality must be given for inspection at the port of entry if these employees are to remain with their cars. The person in charge of the gang must have all employees ready for inspection before arrival at the port of entry and a roster indicating names and addresses of personnel in the gang.

Railroad cars, auxiliaries, etc. entering the United States to work, must exit at the same point as entered.

When business cars are handled in-transit trains and are occupied by supervisors who have been previously cleared by Immigration Service, train may pass through the United States under the in-transit agreement.

When persons not enjoying pre-inspection privileges occupy business cars, stop must be made for Customs and Immigration inspection.

Advice regarding the movement of business cars should be issued in advance to the applicable Customs and Immigration offices by the chief RTC’s office.

Canadian Customs and Immigration will be furnished on request an inventory of supplies on hand in business cars. Inventory will be checked and certified at Canadian port of exit and again at port of re-entry. The North American Emergency Response Guide Book as outlined in Dangerous Goods section of the Operating Manual, meets the FRA requirements when handling dangerous goods in the United States.

**Crossing U.S. Borders**

**Westbound Movements - Baudette**

Train crews must be prepared to spot their train at border location for customs inspection when requested. Train crews must have proper identification with them and must be prepared to produce identification for United States Customs officials. Trains stopped may be required to perform a slow roll by for United States Customs officials. Trains must not proceed into the United States until permission has been received from United States Customs officials.

**Eastbound Movements - International Boundary, Mile 45 Sprague Sub.**

Train crews must have proper identification with them and be prepared to produce identification for United States Customs officials. Trains stopped may be required to perform a slow roll by for United States Customs officials. Trains must not proceed beyond Mile 45 Sprague Sub until permission has been received from United States Customs officials.

The applicable speed restriction for cars identified on the WOPRT (train journals) and other documents as “Speed Restricted in Canada” also apply to movements operating on the Sprague Sub.

e. **TGBO** - crews reporting for duty must obtain applicable TGBO prior to commencing work WHETHER OR NOT they will be operating on the track where TGBO is applicable. The TGBO may include instructions or restrictions required to operating within non-main trackage.

**Exception:** not required for movements confined to Winnipeg Terminal operations in possession of a DOB.

f. **SBU Storage and Replacement Battery Locations** Line locations have been outfitted with secure storage for SBU's and power for SBU battery replacement and charging.

**Middlebro** - West end signal bungalow. RTC must be advised when SBU’s are taken.

g. **Emergency Water Stations**

**Rainy River** - Booking-In Room

**Woodridge** - Tool-House
2 STATIONS

VASSAR

Signal Status Request

<table>
<thead>
<tr>
<th>AAR 8787</th>
<th>CN 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal 679</td>
<td>DTMF 10#06791</td>
</tr>
<tr>
<td>Signal 680</td>
<td>DTMF 10#06801</td>
</tr>
<tr>
<td>Signal 680D</td>
<td>DTMF 10#06802</td>
</tr>
</tbody>
</table>

NAVIN

a. Refer to Winnipeg Terminal Operating Manual for instructions on RX3 derail.

3 SPURS AND OTHER TRACKS

Unless Engineering Supervisor permission received, the following restrictions are applicable at these locations:

Williams, Swift, Badger Mile 77.4 SO25, Sprague, Vassar, Carrick, Woodridge Mile 88.7 TRK SO35 and SO37, Giroux, Dufresne.

Exceptions:

6 Axle Locomotives prohibited.

Speed 10 MPH

Exception - 1

Locomotive restrictions not Applicable at Williams, Sprague, Giroux and Dufresne

Exception - 2

Baudette and La Broquerie

Speed: 5 MPH

4 INTERLOCKINGS - NIL

5 PUBLIC CROSSINGS AT GRADE

a. Mile 137.54 - Public crossing is exempt from the requirements of Rule 103 SI for blocking crossings with the following conditions. Crossing may be occupied for up to one hour for meets and over-takes. After this, provisions of Rule 103 SI for blocking crossings will apply.

When crossing will be blocked, crew must contact RTC to determine how long they will be in the siding. RTC must be notified prior to crossing being cut. Crossing must be cut in the event of emergency vehicle(s) requiring passage.

b. Rule 103.1 (c) - not applicable at:

- Mile 18.52 Williams Siding
- Mile 68.68 Vassar Siding
- Mile 118.22 Giroux Siding

c. Rule 103.1 (d) Applicable to the following crossings equipped with push-buttons:

- Mile 2.5 Mile 17.6 Mile 25.1 Mile 32.1

d. Rule 103.1 SI - To avoid unnecessary operation of warning devices when stopping, the stop must be made as follows:

<table>
<thead>
<tr>
<th>MILE</th>
<th>STOP</th>
<th>AFFECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>43.4</td>
<td>Circuit Signs Two Tracks</td>
<td>All</td>
</tr>
<tr>
<td>57.81</td>
<td>Circuit Signs 300 ft W</td>
<td>Eastward</td>
</tr>
<tr>
<td>68.7</td>
<td>Stop Signs Track SO21</td>
<td>All</td>
</tr>
<tr>
<td>118.22</td>
<td>Circuit Signs 300 ft W</td>
<td>Eastward</td>
</tr>
<tr>
<td>138.72</td>
<td>Circuit Signs 300 ft W</td>
<td>Eastward</td>
</tr>
</tbody>
</table>
6 DETECTORS AND WARNING SYSTEMS

Derailment Detector
- Mile 2.66
- Mile 34.54
- Mile 40.66
- Mile 142.42
- Mile 145.97

7 SPECIAL ZONES

a. Special Dangerous Commodities
   I. Do not exceed 35 MPH between Mile 140.0 and Mile 144.9.
   II. Westward movements must be inspected at Mile 133.1

b. Key Trains and Higher Risk Key Trains
   I. Key Route - Dangerous Goods 9.0(d) applicable.
   II. Key Trains and Higher Risk Key Trains are speed restricted as per Dangerous Goods 9.0 (c) between:
      • Mile 129.0 and Mile 144.9

8 SPEEDS

a. Speeds on Sidings
   
   BLUEBERRY MIDDLEBRO SPRAGUE VASSAR BAYNHAM GIROUX LORETTE CARRICK

   Speed 25 MPH
   LA BROQUERIE DUFRESNE

   Speed 10 MPH

Cold Weather Speed Restrictions

<table>
<thead>
<tr>
<th></th>
<th>Freight Trains</th>
<th>Higher Risk Key Trains</th>
<th>Special Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmer than -25</td>
<td>--</td>
<td>50 mph</td>
<td>30 mph</td>
</tr>
<tr>
<td>-25C to -29C</td>
<td>40 mph (1)</td>
<td>50 mph</td>
<td>25 mph</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 mph (1)</td>
<td></td>
</tr>
<tr>
<td>-30C or colder</td>
<td>40 mph</td>
<td>40 mph</td>
<td>25 mph</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 mph (1)</td>
<td></td>
</tr>
</tbody>
</table>

(1) Between mile 64 and 65
   Between mile 82 and 83

Hot Weather Speed Restrictions

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Trains operating at Freight Train Speed</th>
<th>Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>30C and Warmer or when</td>
<td>If Zone speed is between 45 and 60 MPH</td>
<td>Entire Subdivision</td>
</tr>
<tr>
<td>advised by GBO, message or</td>
<td>by 10 mph and in no case reducing to</td>
<td></td>
</tr>
<tr>
<td>verbally.</td>
<td>less than 40 MPH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If PSO/TSO speed is greater than 35 MPH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>reduce by 10 MPH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in no case reducing to less than 30 MPH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Note: PSO/TSO of 30 MPH or less, comply</td>
<td></td>
</tr>
<tr>
<td></td>
<td>with the actual restriction.</td>
<td></td>
</tr>
<tr>
<td>MILE</td>
<td>MPH</td>
<td></td>
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<tr>
<td>---------------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>0.0 to 1.8</td>
<td>Zone 40</td>
<td></td>
</tr>
<tr>
<td>1.8 to 142.4</td>
<td>Zone 60</td>
<td></td>
</tr>
<tr>
<td>Graceton Siding</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>45.19 to 46.3</td>
<td>PSO 25</td>
<td></td>
</tr>
<tr>
<td>57.81 (Crossing)</td>
<td>Westward 25 MPH leaving SDG until fully occupied</td>
<td></td>
</tr>
<tr>
<td>142.4 to 144.9</td>
<td>Zone 50</td>
<td></td>
</tr>
</tbody>
</table>
STAY ALERT, STAY SAFE, STAY FIT FOR WORK.

Policy to Prevent Workplace Alcohol and Drug Problems
Introduction

ABOUT THIS POLICY

To prevent workplace alcohol and drug problems, CN has had a variety of programs and initiatives pertaining to alcohol and drug use by our employees. This policy consolidates these programs and clearly defines who is covered, and the standards and consequences of a violation of this policy.

THIS POLICY

· applies to all Canadian-based CN employees, as well as contractors, subsidiaries, tenants, and guests;
· establishes and clearly describes the serious consequences of policy violations;
· includes provisions for drug testing (not random);
· clearly defines roles and responsibilities that make everyone accountable; and
· requires employees who must have a valid driver’s license or who operate railway equipment to report impaired driving charges, license suspensions, and/or convictions.

MORE INFORMATION

If you have questions about any aspect of the policy or require additional copies of this policy or information about the EFAP, contact your human resources representative.

Policy

Canadian National (CN) is committed to the health and safety of its employees, the public and the environment in order to become the safest railway in North America. As part of this commitment, CN, its employees and unions, share a responsibility to maintain a safe workplace, free from the negative effects of alcohol and other drugs. As such, CN has zero tolerance for impairment in the workplace.

Management, unions and employees are concerned with alcohol and other drug use because it can affect the health, safety, performance and conduct of employees on the job, and impose hardships on the employer, employee, co-workers and family. This policy is an important component of CN’s overall safety program to minimize risk in all operations.
Scope

This policy applies to all employees of CN and its subsidiaries who are based in Canada. Those employees in safety sensitive positions are held to a higher standard and are subject to more serious consequences because of the direct impact that their positions have on safety.

In addition, Canadian-based employees who operate into the United States are subject to the rules and regulations governing cross-border operations. U.S.-based employees of CN are subject to the rules and regulations of that jurisdiction. Because company concern for safety extends to the operations of contractors and tenants, they are also expected to adhere to these standards, in whole or in part, as a condition of contract or lease.

Policy Statement

All employees are required to report and remain fit for duty, free of the negative effects of alcohol, cannabis and other drugs. It is strictly prohibited to be on duty or to be in control of a CN vehicle or equipment while under the influence of alcohol or other drugs, including the after-effects of such use. Specifically, the use, possession, presence in the body, distribution or sale of illegal drugs while on duty (including during breaks), on or off company premises, in company vehicles and equipment, or while on company business is prohibited. Possession, distribution, or sale of alcoholic beverages or cannabis and the consumption of any form of alcohol or cannabis is prohibited while on duty (including during breaks), on or off company premises, in company vehicles and equipment, or while on company business.

Employees are expected to use over-the-counter, prescription or medically-authorized drugs responsibly. All employees, in particular those in safety-sensitive positions or who can be in control of CN vehicles or equipment, are responsible for investigating whether the medication will cause impairment. Employees must check with their own physician or pharmacist regarding the use of opiates, medically authorized cannabis, or any other impairing medications, and report any concerns to CN’s Occupational Health Services and abide by their recommendations to ensure safety.

Prevention and Assistance

Personal problems affecting an employee’s performance, health or safety can often be overcome with education, counseling or treatment. CN is committed to helping any employee who may have a problem related to alcohol or any other drug. However, the employee must be willing to address the problem before it has an impact on performance or safety. Seeking assistance is the preferred method of dealing with these problems. In these cases, the employee’s employment or advancement opportunities will not be affected, provided approved rehabilitation is undertaken and results in satisfactory control of the problem.

Employees should encourage co-workers who may have a current or emerging alcohol or drug problem to contact the Employee and Family Assistance Program (EFAP), where assistance will be provided in line with the company’s EFAP policy. Using the services provided by the EFAP does not eliminate the requirement to meet performance expectations. In addition to the educational program outlined in the EFAP policy, CN provides educational and awareness programs for employees concerning this policy and its application.

Available Means to Assess and Monitor Policy Compliance

1. SUPERVISORY MANAGEMENT OF PERFORMANCE

Supervisors will be trained as to their responsibilities in administering this policy.

2. MEDICAL ASSESSMENTS OF FITNESS FOR DUTY

Employees who work in or transfer into safety-sensitive or safety-critical positions are required to undergo pre-placement and/or periodic medical assessments that evaluate the impact, if any, of medical conditions on fitness for work. As part of these assessments, health conditions such as substance abuse disorders and/or the use of impairing medication can be identified, assessed and monitored through medical assessment and biological testing (including drug testing). Where an employee in a safety sensitive or safety critical position is diagnosed as having a substance use disorder, medical monitoring, including drug and alcohol testing, may be required to ensure on going fitness for duty in this position.
REASONABLE CAUSE AND POST ACCIDENT TESTING

Biological testing for the presence of drugs in urine and oral fluids or alcohol in the breath is conducted where reasonable cause exists to suspect alcohol or drug use or possession in violation of this policy, including after an accident or incident. Post-accident testing is done after any significant accident or incident where an experienced operating officer, upon consideration of the circumstances, determines that the cause may involve, or is likely to involve a rule violation and/or employee judgment. In cases of reasonable cause or post-accident testing, any employee whose breath alcohol concentration is over 0.04, and/or who tests positive for legal or illegal drugs (without medical justification) in oral fluids, and/or where impairment is demonstrated, will be considered to be in violation of this policy.

EMPLOYMENT CONTRACTS

Employees may be monitored on the compliance of this policy, including testing for drugs and alcohol, as part of their employment contract. This would be established as a condition of continuing employment or reinstatement after dismissal.

SEARCHES

CN reserves the right to conduct unannounced searches for alcohol or drugs where there are reasonable grounds to believe they are present on premises, in vehicles and/or equipment owned, leased, or otherwise controlled by CN.

IMPAIRED DRIVING CHARGE OR CONVICTION

Employees who require a valid driver’s license in the performance of their duties or who operate railway equipment and where driving privileges are lost or suspended due to impaired driving while not on duty, nor in a CN vehicle, nor on CN premises, must immediately report such loss to their supervisor. A medical assessment will then determine whether the employee suffers from a substance use disorder.

RULE G AND RULE G BY-PASS

This policy supplements, but does not modify the General Safety Rule 1.1, Canadian Rail Operating Rules (C.R.O.R.) Rule G and the Union/Management Agreement on The Control of Drug and/or Alcohol Abuse. (Rule G By-Pass). Nothing in this policy reduces the requirements of Rule G or changes the provisions of the Rule G By-Pass agreement.

HOSTING

To demonstrate CN’s commitment to a safe, healthy workplace free of the negative effects of alcohol or other drug use, the company supports and provides guidance for responsible hosting practices, including designated driver programs.

VIOLATIONS

Violation by an employee will result in corrective action up to and including dismissal. Violation by contractors or tenants will be considered a breach of their contract or lease. Refusal to complete the testing process set out under this policy is considered a policy violation.

Authority

The Executive Vice-President & Chief Operating Officer and the Vice-President, Human Resources, in consultation with other Vice-Presidents and Divisional Heads, are jointly responsible to develop and implement information, education, testing and follow-up required under this policy.
If you need help with a drug or alcohol problem, contact the Employee and Family Assistance Program (EFAP) at: 1-800-268-5211
ALCOHOL & DRUG

Reasonable cause and post-accident/post-incident drug and alcohol testing

December 2018

If you need help with a drug or alcohol problem, contact the Employee and Family Assistance Program (EFAP) at: 1-800-268-5211

Reasonable cause
Job aid

Incident or signs of impairment? (Get a second opinion.)

Remove employee from work but not from service.

Does employee need medical aid? Yes No

Get medical aid.

Medical aid complete? Yes No

Employee held out of service until final results received.

Final drug OR alcohol result positive? Yes No

Point of collection AND breath alcohol negative? Yes No

Contact CN Police (1-800-465-9229) 24/7/365 days a year.

Police investigation, employee in care and custody of CN Police or local police.

CN Police determines if there is a criminal code violation.

Police provide contact for testing, supervision arranges tests and remains with employee.

Is employee eligible for Rule G By-Pass? Yes No

Supervisor escorts employee to test and informs of intention to test.

Advise Labour Relations.

Investigation.

Corrective action up to and including dismissal.

End of testing process, employee may be returned to service.

The numbered bullets indicate that you can find more information on the other side of this job aid.

The Employee and Family Assistance Program (EFAP) at: 1-800-268-5211
Additional information

Assessing the situation
When you are faced with a situation where an employee’s behaviour, actions, or appearance is unusual, first determine whether this could be due to a medical problem (e.g., heart attack, seizure) or to the use of alcohol or drugs. Your assessment of the situation will be based on your observations, e.g., what you see and what you smell. Get a second opinion if possible.

Removing the employee from the job
If you believe that the problem situation might be because the employee has a medical problem or is under the influence of alcohol or drugs, you must immediately remove the employee from the job in order to avoid an unsafe situation and/or to evaluate the situation.

Dealing with a medical problem
If you believe that the employee is suffering from a medical problem, get assistance immediately.

Post-accident/post-incident
Post-accident testing is done after any significant accident or incident when the employee is the experienced operating officer, upon consideration of the circumstances, determines that the employee may involve or is likely to involve a rule violation and/or employee judgment.

Post-accident testing will be done in cases of personal injury only if the incident was likely to be due to a rule violation or employee judgment and then will be done in accordance with the following process:

In cases where the CN employee to be tested post-accident requires immediate or emergency medical aid, medical aid must be the first priority. While drug and alcohol testing is an appropriate part of the investigation of serious injuries and accidents, it should not delay or interfere with emergency medical care. In these situations, drug and alcohol testing will be conducted once the employee’s medical needs have been determined and provided for.

In cases where the CN employee is injured and requires emergency medical aid from physicians, the CN Officer will determine, on the basis of advice from the treating physician, at what point in time the employee is able to:
- Provide informed consent to the drug and alcohol test;
- Physically provide a urine sample.

Note: Rail/highway crossing accidents and accidents attributable to natural causes, vandalism or trespassing do not trigger post-accident testing for covered employees.

Determining reasonable cause
Reasonable cause means that there is cause to suspect alcohol or drug use or possession in violation of the CN Policy to Prevent Workplace Alcohol and Drug Problems. Reasonable cause is determined by observing the signs of alcohol and drug impairment, including the smell of alcohol on the employee’s breath, slurred speech, unusually pale or flushed skin or erratic behaviour. For more examples of signs of alcohol and drug use, refer to the Reasonable Cause Checklist.

Contacting CN Police
In cases where there is reasonable cause to believe that the employee may be impaired, you must contact CN Police (1-800-465-9239) to determine whether there is a potential Criminal Code violation. In such instances, the employee is breaking the law and this is why CN Police must be contacted – their role is law enforcement. Only CN Police should determine if the suspected violation is of a criminal nature. Examples of such violations are: operating a motor vehicle or rail equipment while impaired and/or possession of illegal drugs.

If CN Police determine that there may be a Criminal Code violation, they will respond by launching a police investigation, including testing for alcohol if they believe alcohol might be involved. If CN Police cannot carry out the investigation themselves, they will refer it to local police.

If there is evidence of a Criminal Code violation (e.g., results of an alcohol test indicate an alcohol level of 0.08% or more and other Criminal Code violations exist), the employee will be under the care and custody of CN Police (or local police) and a police investigation will be conducted. In addition, the supervisor will take action under Rule G or the Policy.

If there is no Criminal Code violation, the supervisor will take action under the Policy.

Note that CN Police may also investigate potential violations of the Railway Safety Act, including potential Rule G violations as well as provincial statute violations, etc.

Determining whether the employee is governed by Rule G

WHAT IS RULE G?

Rule G is a Canadian Rail Operating Rule (CROPR) which is passed under the Railway Safety Act.

Rule G prohibits “the use of intoxicants or narcotics by employees subject to the agreement in testing, the usual and customary CN process is followed: the CN supervisor will contact the CN Police Communications Centre (1-800-465-9239) to arrange for the usual drug testing agent to conduct the test. In order for the test results to be valid, the breath sample must be obtained within eight hours of the accident and the urine sample must be obtained within 12 hours of the accident.

WHO IS GOVERNED BY RULE G?

While the Policy applies to all employees, Rule G applies to a specific set of employees, namely any employee in any service connected with the movement of trains or engines. This means any employee who is required to pass a pass to a CROPR test to do his or her job.

WHAT IS A RULE G BY-PASS?

A Rule G By-Pass allows an employee to “by-pass” the conditions of a Rule G violation under certain circumstances. It is described in the Rule G By-Pass Agreement under which an employee who is suspected of having consumed alcohol and/or using drugs will not be dismissed the first time such an incident occurs if the employee meets the conditions for the By-Pass.

WHO IS ELIGIBLE FOR A RULE G BY-PASS?

An employee is eligible for a Rule G By-Pass if he/she meets all of the following conditions:

- he/she belongs to one of the unions that are part of the Rule G By-Pass Agreement.
- he/she has agreed to testing, the usual and customary CN process is followed: the CN supervisor will contact the CN Police Communications Centre (1-800-465-9239) to arrange for the usual drug testing agent to conduct the test. In order for the test results to be valid, the breath sample must be obtained within eight hours of the accident and the urine sample must be obtained within 12 hours of the accident.

Testing for alcohol should be done within three hours (and for Policy purposes, no later than eight hours) of determining reasonable cause.

Testing for drugs must be done within 12 hours of the incident that triggers testing (either evidence of impairment or an accident/incident).

Drug and alcohol testing is done by mobile collector or at the nearest collection site which will provide a preliminary, immediate result. In case of a non-negative preliminary drug result, the collector will arrange collection of oral fluids and will send the samples to a certified laboratory for final results.

For non-negative drug or positive alcohol results (over 0.04), the employee must be held out of service pending receipt of final results and interventions. For negative preliminary drug or alcohol test results (under 0.04), the employee may be returned to service.

Informing the employee of the intention to test
When you decide to do a Reasonable Cause test, you must inform the employee by saying the following:

“I have reasonable cause to believe that you are under the influence of alcohol or another drug. You must now come with me to be tested.”

In case of post-accident/post-incident testing, you must inform the employee of the intention to test by saying:

“On consideration of the circumstances of this incident/ accident, we have determined that the cause may involve a rule violation and/or employee judgement. For this reason you must come with me now to be tested.”

Do not remove the employee from service until the testing is completed.

Until the employee is tested, he/she must abstain from alcohol or drugs. To ensure this, the employee must be in the care of another person until after the sample collection or else must be instructed that they may not abstain from the use of all drugs and alcohol until the testing process is completed.

REFUSAL TO BE TESTED

An employee who refuses to be tested is in violation of the Policy and the supervisor must:

- ensure the employee understands the consequences of refusal (possible dismissal)
- remove the employee from service pending investigation
- escort the employee home or to a safe place
- initiate the investigation procedure

ARRANGING FOR DRUG AND ALCOHOL TESTING

When informing the employee of the intention to test for drugs, the supervisor must contact CN Police (1-800-465-9239) 24 hours in advance to arrange for a test. The CN Police Communications Centre will provide contact information for the agency that does drug and alcohol testing for CN.

It is the supervisor’s responsibility to contact the Drug Collection Agency to make arrangements for the test.

Escorting the employee to a safe place
It is important that the employee be accompanied at all times until the sample collection is done so that the employee remains safe and does not drink alcohol or take drugs before a sample is taken.

Drug and Alcohol testing
For any potential Criminal Code violation in which CN Police believe alcohol is involved, CN Police (or local police) will test the employee’s blood alcohol level using a preliminary screening device or a breath alcohol machine.

Results obtained by the police for potential Criminal Code violations can be used by the Company in its actions under Rule G or the Policy.

For any potential Rule G or Policy violation that is not a potential Criminal Code violation, under the policy, the collection agency will do alcohol and drug testing as follows:

Testing for alcohol should be done within three hours (and for Policy purposes, no later than eight hours) of determining reasonable cause.

Testing for drugs must be done within 12 hours of the incident that triggers testing (either evidence of impairment or an accident/incident).

Drug and alcohol testing is done by mobile collector or at the nearest collection site which will provide a preliminary, immediate result. In case of a non-negative preliminary drug result, the collector will arrange collection of oral fluids and will send the samples to a certified laboratory for final results.

For non-negative drug or positive alcohol results (over 0.04), the employee must be held out of service pending receipt of final results and interventions. For negative preliminary drug or alcohol test results (under 0.04), the employee may be returned to service.
CANADIAN NATIONAL RAILWAY

Canadian Rail Operating Rules

Effective 0001 on

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GENERAL NOTICE

Safety and a willingness to obey the rules are of the first importance in the performance of duty. If in doubt, the safe course must be taken.

Note: CN Special Instructions are indicated by blue coloured text

Note: Purple coloured text indicates a hyperlink within the document when viewing electronically.
DEFINITIONS
For the purpose of these rules and special instructions, the following definitions apply:

GENERAL

ADVANCE SIGNAL
A fixed signal used in connection with one or more signals to govern the approach of a movement to such signal.

ADVANCED TRAIN DISPATCHING SYSTEM
Train control technologies that provide enhancements for protecting overlapping authorities with ability to provide signal indications into protected track.

BLOCK
A length of track of defined limits, the use of which by a movement is governed by block signals.

BLOCK SIGNAL
A fixed signal at the entrance to a block to govern a movement entering or using that block.

CENTRALIZED TRAFFIC CONTROL SYSTEM (CTC)
A system in which CTC rules apply.

CLEARANCE POINT
The location in which equipment or track units are clear of the Foul Zone. Clearance points may be indicated by:

• Green paint on the tie and web of the rails
• A sign or other mark as specified in special instructions

CONTROLLED BLOCK
A block in CTC between consecutive controlled locations or points.

CONTROLLED SIGNAL
A CTC block signal which is capable of displaying a Stop indication until requested to display a less restrictive indication by the RTC.

CONTROLLED LOCATION
A location in CTC the limits of which are defined by opposing controlled signals.

CONTROLLED POINT
A signal location in CTC consisting of controlled signal(s) in one direction only.

CROSSOVER
A track joining adjacent main tracks, or a main track and another track.

FOUL ZONE
A segment of track between the switch points and clearance point of a turnout.

NON-MAIN TRACK CROSSOVER
A track connection between two adjacent non-main tracks which is intended primarily for the purpose of crossing over between the two tracks and will hold no more than one standard rail car in the clear.

DAILY OPERATING BULLETIN (DOB)
A document containing applicable information from each GBO, instructions and other information requiring compliance within limits indicated in special instructions.

ELECTRONIC COMMUNICATIONS METHOD (ECM)
An electronic method for transmission and cancellation of authorities, instructions or information.

ENGINE
A locomotive(s) operated from a single control or a cab control car, used in train, transfer or yard service.
ENGINE IN YARD SERVICE
An engine with or without cars utilized exclusively in switching, marshalling, humping, trimming and industrial switching.

EQUIPMENT
One or more engines and/or cars which can be handled on their own wheels in a movement.

EXCLUSIVE TOP
A TOP that provides exclusive occupancy of the track to one foreman. No more than two track units can operate within the limits of an Exclusive TOP.

EXCLUSIVE TRACK UNIT SPEED
When protected by an Exclusive TOP, it is a speed that permits a track unit to stop short of a switch not properly lined. Track units handling equipment must not exceed the lesser of; authorized freight, passenger or temporary speed restrictions. The delivery method for temporary speed restrictions will be indicated in special instructions.

FIXED SIGNAL
A signal or sign at a fixed location indicating a condition affecting the operation of a movement.

FOLLOW-UP TOP
A TOP issued within limits of a movement(s) that has passed or will be identified by the foreman as having passed the foreman’s location.

FOULING
Is placing or leaving equipment or track units on the track close to a switch or within the turnout or on adjacent track preventing safe passage of equipment (including employees riding the side of such equipment) passing it on another track or in the case of a public crossing at grade would prevent vehicular traffic from being able to operate over the crossing unimpeded.

GENERAL BULLETIN ORDER(S) (GBO)
Instructions regarding track condition restrictions and other information that affect the safety and operation of a movement.

GRAVITY DROP
Releasing stationary equipment and permitting it to roll under its own momentum. Gravity drops are prohibited at CN.

HIGH RISK LOCATION
A track, or portion of a track, other than a main track, subdivision track, or siding; identified in special instructions, on which unattended equipment requires the application of Rule 112(a).

HUMPING
Pushing equipment at a regulated speed then releasing it under its own momentum, in an engineered environment where the route and speed are controlled through automated or assisted devices.

INTERLOCKING
An arrangement of interconnected signals and signal appliances for which interlocking rules and special instructions are in effect.

INTERLOCKING LIMITS
The tracks between the extreme or outer opposing interlocking signals of an interlocking.

INTERLOCKING SIGNAL
A fixed signal at the entrance to or within interlocking limits to govern the use of the routes.

KICKING
Pushing equipment then releasing it under its own momentum. Does not include humping.

MAIN TRACK
A track of a subdivision extending through and between stations governed by one or more methods of control upon which movements, track units and track work must be authorized.
MARKER
When used, will indicate the last piece of equipment in a movement. It will be one of the following:

• a red light, a red reflectorized plaque, a sense and braking unit (SBU), or
• an occupied caboose, distributed power remote locomotive consist or distributed braking car, when the last piece of equipment in the direction of travel.

METHOD OF CONTROL
Rules and/or special instructions governing the use of a track(s).

MOVEMENT(S)
The term used in these rules to indicate that the rule is applicable to trains, transfers or engines in yard service.

MULTI-TRACK
Two or more main tracks of a subdivision at the same location.

NON-MAIN TRACK (NMT)
Any track(s) other than those listed in time table columns as having CTC or OCS applicable and unless otherwise provided include a requirement to operate at REDUCED speed.

NON-SIGNALLED SIDING
A siding where non-main track rules apply, the use of which may be governed by special instructions.

OCCUPANCY CONTROL SYSTEM (OCS)
A system in which OCS rules apply.

RAILROAD SUPPLIED ELECTRONIC DEVICE (RSED)
Electronic Device provided by the railroad company that serves for operational purposes. The Device can contain a digital copy of the operating manual or other operational documents as well as different applications to perform work.

RUNNING SWITCH
Pulling equipment then releasing it under its own momentum.

SCHEDULE
Information pertaining to the operating times of a passenger train.

SIDING
A track adjacent and connected to the main track which is so designated in the time table, GBO or operating bulletin.

SIDING CONTROL TERRITORY (SCT)
Non-signalled sidings indicated in special instructions where SCT rules are applicable.

SIGNALLED SIDING
A siding where CTC rules apply.

SIGNAL INDICATION
The information conveyed by a fixed signal.

SINGLE TRACK
One main track on a subdivision at a location.

STATION
A location identified by a station name sign and designated by that name in the time table.

SUBDIVISION
Railway trackage designated by time table.

SUBDIVISION TRACK
A Non-Main Track so indicated in the time table method of control column that is an extension of the main track, and the through track at that location, defined with subdivision mile posts. REDUCED
speed is applicable to a maximum speed as indicated in the time table. Transfers must not exceed 15 MPH.

**TABULAR GENERAL BULLETIN ORDER (TGBO)**
A document specific to a movement, containing applicable information from each GBO, instructions and other information requiring compliance within limits indicated in the TGBO.

**TIME TABLE**
The special instruction that contains subdivision description information and footnotes relating to the operation of movements and track units. Time table may contain information applicable on other tracks.

**TRACK OCCUPANCY PERMIT (TOP)**
Authority issued for the protection of track units and track work.

**TRACK UNIT (TU)**
A vehicle or machine capable of on-track operation utilized for track inspection, track work and other railway activities when on a track.

**TRACK WORK**
Any work on or near the track that may render the track unsafe for movements at normal speed or where protection against movements may be required for employees and machines involved in track construction and repairs.

**TRAILING END**
The tail end of the last piece of equipment in a movement in the direction of travel.

**TRAIN**
An engine with or without cars intended to operate on the main track at speeds in excess of 15 MPH or a track unit when so designated.

**TRAIN INFORMATION BRAKING SYSTEM (TIBS)**
A system with rear and front communication components capable of:

i. monitoring and displaying brake pipe pressure on the rear car;

ii. calculating and displaying distance measurement;

iii. initiating an emergency brake application at the rear of the train from the controlling locomotive.

**TRANSFER**
An engine with or without cars operating on main track at speeds not exceeding 15 MPH.

**UNATTENDED**
When an employee is not in close enough proximity to take effective action.

**YARD**
A system of non-main tracks, utilized to switch equipment and for other purposes over which movements may operate subject to prescribed signals, rules and special instructions.

**OCCUPATIONAL TERMS**

**ASSISTANT CONDUCTOR**
An employee working under the supervision of a conductor. May also be referred to as trainman or yardman.

**CONDUCTOR**
An employee in charge of the operation of a movement.

**EMPLOYEE**
A person qualified to regulatory and company standards employed by the company. Applies to contract employees and employees of other companies and railways operating and/or performing other rules related duties on the host railway trackage.

**FOREMAN**
An employee in charge of the protection of track work and track units.

**LOCOMOTIVE ENGINEER**
An employee in control of the engine.

**PILOT**
An employee assigned to a movement when the locomotive engineer or conductor, or both, are not fully acquainted with the physical characteristics or rules of the railway over which the movement is to be operated.

**PROPER AUTHORITY**
The rail traffic controller or the appropriate railway supervisor.

**RAIL TRAFFIC CONTROLLER (RTC)**
An employee in charge of the supervision and direction of movements and for the provision of protection for track work and track units on a specified territory.

**SIGNALMAN**
An employee in charge of an interlocking.

**SUB-FOREMAN**
A rules qualified employee that works under the protection held by a foreman.

**SWITCHTENDER**
An employee that handles switches for other employees.

**UTILITY EMPLOYEE**
An employee who can be used as a temporary crew member or perform other assigned duties.

**SWITCHES**

**SWITCH**
A device used to route equipment or a track unit from one track to another.

**AUTO-NORMAL SWITCH**
A locally-controlled switch, which will automatically restore to normal position after a movement has cleared the switch track circuit.

**DUAL CONTROL SWITCH**
A switch equipped for powered and hand operation.

**ELECTRIC SWITCH LOCK**
An electric lock connected with a hand operated switch to prevent its operation until the lock is released.

**MAIN TRACK HAND OPERATION SWITCH**
A switch connected to the main track used to route equipment or a track unit to or from the main track.

![Diagram of switch targets](image)

**Note:** Switch targets may be different shapes than illustrated but must not be diamond shape.

**NON-MAIN TRACK HAND OPERATED SWITCH**
A switch used to route equipment or a track unit within non-main track territory.

Note: Switch targets may be different shapes than illustrated but must not be diamond shape.

**POWER-OPERATED SWITCH**
A switch equipped for powered operation, but not equipped for hand operation.

**SEMI-AUTOMATIC SWITCH**
A non-main track switch equipped with an internal securing mechanism that permits equipment to trail through the switch points thus setting the switch for the route being used.

Note: Switch targets must be diamond shaped.

**SPRING SWITCH**
A switch equipped with a spring mechanism arranged to restore the switch points to normal position after having been trailed through.

**SPEEDS**

**SLOW SPEED**
A speed not exceeding 15 miles per hour.

**DIVERGING SPEED**
A speed not exceeding 25 miles per hour.

**MEDIUM SPEED**
A speed not exceeding 30 miles per hour.

**LIMITED SPEED**
A speed not exceeding 45 miles per hour.

**REDUCED SPEED**
A speed that will permit stopping within one-half the range of vision of equipment.

**RESTRICTED SPEED**
A speed that will permit stopping within one-half the range of vision of equipment, also prepared to stop short of a switch not properly lined and in no case exceeding SLOW speed. When moving at RESTRICTED speed, be on the lookout for broken rails. When a broken rail is detected, the movement must be stopped immediately and must not resume until permission is received from the RTC or signalman.

**REDUCED AND RESTRICTED SPEED – RULE COMPLIANCE MONITORING**
In addition to all other requirements while operating at REDUCED or RESTRICTED speed, a movement must come to a controlled stop:
(a) prior to passing the location of a flashing red marker light, mounted between the rails, on the track upon which the movement is operating.

(b) When a STOP signal as per Rule 12(a)(i) is displayed by an employee for an approaching movement. The stop must be made before the employee's location.

TURNOUT SPEED

Speed Unless otherwise provided by signal indication or special instructions, a speed not exceeding 15 MPH.

TRACK UNIT SPEED

A speed that;

(a) permits a track unit to stop within one-half the range of vision of equipment or a track unit;

(b) permits a track unit to stop short of a switch not properly lined or any obstruction or track defect that may prevent safe passage; and

(c) does not exceed maximum authorized speed for that track unit.

Track units handling equipment must not exceed the lesser of; authorized freight, passenger or temporary speed restrictions. The delivery method for temporary speed restrictions will be indicated in special instructions.

Foreman operating track units handling equipment encountering Rule 43 signals must not exceed 10 MPH within the Rule 43 limits unless the applicable speed restriction is obtained by verbal communication with the foreman responsible for placing the signals or, if unable to contact the foreman, from the RTC.
GENERAL RULES

A.
Every employee in any service connected with movements, handling of main track switches and protection of track work and track units shall;

i  be subject to and conversant with applicable CROR rules, special instructions and general operating instructions;

ii have a copy of this rule book, the general operating instructions, current time table and any supplements, and other documents specified by the company accessible while on duty; A company approved electronic version is accepted.

iii provide every possible assistance to ensure every rule, special instruction and general operating instruction is complied with and shall report promptly to the proper authority any violations thereof;

iv communicate by the quickest available means to the proper authority any condition which may affect the safe operation of a movement and be alert to the company’s interest and join forces to protect it;

v obtain assistance promptly when it is required to control a harmful or dangerous condition;

vi be conversant with and governed by every safety rule and instruction of the company pertaining to their occupation;

vii pass the required examination at prescribed intervals, not to exceed three years, and carry while on duty, a valid certificate of rules qualification;

Guidelines for CROR recertification procedures governing non-managerial employees:

(a) Employees governed by the Canadian Rail Operating Rules must receive instruction and pass the required examinations applicable to their job classification at intervals not to exceed a three year period. Employees holding a valid rules certificate must attend recertification course and pass the required examinations prior to the expiration date. It is the responsibility of the employee to ensure that they are registered for and attend such recertification course prior to the expiration date. Employees must advise their supervisor at least 25 days prior to the expiration date if they have not been scheduled to attend a recertification class.

(b) Schedules for Transportation employees are administered by the applicable Crew Management Centre (CMC). Changes to scheduled dates must be arranged through the employee’s supervisor and/or CMC.

(c) Schedules for Engineering, RTCC and other departments are administered by each individual function. Changes to scheduled dates must be arranged with the employee’s supervisor and/or designated scheduler.

(d) Company policy requires that those rule qualified employees that have been absent from the operating rules environment for extended period of time, are governed by the following;

i  0 to 6 months - due to illness, lay-off, injury, authorized leave of absence, vacation etc. -may return at anytime, previous rule status is still valid.

ii 0 to 6 months - due to suspension or unauthorized leave-Divisional Officers and Operating Practices will decide if the employee may require re-examination or requalification upon return to work.

iii 6 to 12 months – all cases - Divisional Officers and Operating Practices will decide if the employee may require re-examination or requalification upon return to work.
iv Over 12 months – the employee must be re-examined or re-qualified.

Note: In all instances when an employee resigns, retires or is discharged, the employee’s rule status becomes void. If the employee is being reinstated, the provisions of ii), iii), or iv) will apply

viii seek clarification from the proper authority if in doubt as to the meaning of any rule or instruction;

ix conduct themselves in a courteous and orderly manner;

x when reporting for duty, be fit, rested and familiar with their duties and the territory over which they operate;

xi while on duty, not engage in non-railway activities which may in any way distract their attention from the full performance of their duties. Except as provided for in company policies, sleeping or assuming the position of sleeping is prohibited. The use of personal entertainment devices is prohibited. Printed material not connected with the operation of movements or required in the performance of duty, must not be openly displayed or left in the operating cab of a locomotive or track unit or at any work place location utilized in train, transfer or engine control; and

xii restrict the use of communication devices to matters pertaining to railway operations. Cellular telephones must not be used when normal railway radio communications are available. When cellular telephones are used in lieu of radio all applicable radio rules must be complied with.

Personal Electronic Device

No electronic communication or personal entertainment devices may be used except in matters pertaining to railway operations and under the specific authority from a company supervisor. When not so authorized, the devices must be powered off while at a company work location including locomotive cabs, track units or at any work place locations utilized in train, transfer or engine control. Unless otherwise authorized, operating crews are prohibited from possessing these devices on their person while on duty. Employees bringing these devices to the work place must leave them powered off in their work bag or leave them in their personal vehicles, lockers or other location where they will not have access to them while on duty.

Railroad Supplied Electronic Device

A Railroad Supplied Electronic Device may be used by employees while on duty to send and receive information. The use of the device is restricted to railway operations. Its use must not impede the crewmembers focus on their surroundings, any existing or upcoming restrictions or emergencies or their ability to safely control the movement. The use of a Railroad Supplied Electronic Device is not permitted when:

- Employee is on the ground and foul of the track
- When any crew member is engaged in an active switching operation (i.e. Riding equipment, controlling the movement, lining switches, etc.)

B.

Special Instructions will be found in time tables, general operating instructions, operating bulletins or GBO. They may be appended to or included within copies of the Canadian Rail Operating Rules but do not diminish the intent of the rule unless official exemption has been granted.

C.

Employees must:

i be vigilant to avoid the risk of injury to themselves or others;
ii expect a movement, track unit or equipment to move at any time, on any track, in either direction;

iii not stand in front of approaching equipment for the purpose of entraining;

iv not ride the side or above the roof of moving equipment when passing side and/or overhead restrictions;

v not be on the roof of moving equipment, or on the lading of a moving open top car;

vi not be on the end of a car while in motion, except the trailing platform of the trailing tank car of a movement;

vii not ride on any car known or suspected to contain a shifted load or damaged such that its structure or components may not be secure, or any car trailing such car; and

viii not entrain or detrain moving equipment.

D. Each employee must be acquainted with, and be on the lookout for, restricted side and overhead clearances. Where standard restricted clearance signs are used, no other advice of restricted clearance will elsewhere or otherwise be given. If such signs are not provided in a yard or terminal, the location of the restricted clearance will be shown in special instructions.

Restricted Clearance locations are:

• Identified by Restricted Clearance Signs

• Specified in Timetable footnotes or Terminal Manuals, or

• Other obstructions when visually identified

When a restricted clearance exists on the same side of equipment where the employee is riding, as identified above, employees are prohibited from riding equipment in these locations and must stop and detrain the equipment prior to passing. From the ground, employees must also remain clear of these locations. Riding equipment on the other side, only if no restricted clearance exists, is permitted.

E. Overhead and side clearance may be restricted on a track at a main shop, diesel shop or car shop. Where restricted clearance exists on such track, it will not be marked by a standard restricted clearance sign nor will its location be elsewhere or otherwise given.

F. Employees must not ride on top or side of equipment, including steps and footboards of locomotives when on any main shop, diesel shop or car shop track or outside shop building facilities, whether or not the overhead and side clearance is restricted.

Unless otherwise provided, in addition to other riding restrictions, employees must not ride any moving piece of equipment while inside a building structure whether or not restricted clearances exist.

G.

i The use of intoxicants or narcotics by employees subject to duty, or their possession or use while on duty, is prohibited.

ii The use of mood altering agents by employees subject to duty, or their possession or use while on duty, is prohibited except as prescribed by a doctor.

iii The use of drugs, medication or mood altering agents, including those prescribed by a doctor, which, in any way, will adversely affect their ability to work safely, by employees subject to duty, or on duty, is prohibited.
iv Employees must know and understand the possible effects of drugs, medication or mood altering agents, including those prescribed by a doctor, which, in any way, will adversely affect their ability to work safely.

H.
Unless otherwise specified, these rules are applicable without respect to the number of main tracks.

I.
Rules pertaining to the main track also apply to tracks specified as signalled sidings and other signalled tracks.

J.
When an Electronic Communications Method (ECM) is used, each transmission received must be examined to ensure legibility. If the transmission is not legible this must immediately be reported to, and retransmitted by, the RTC. Illegible transmissions must not be used and in the case of paper based authorities, must be destroyed.

K.
When the term "in writing" is used in these rules, special instructions and general operating instructions, if the written permission, authority or instruction referred to is not received personally by the receiving employee, it must be copied by the receiving employee and repeated back to the sender to ensure it was correctly received.

L.
Wherever the following occupational names or titles appear in these rules, special instructions, or general operating instructions, they apply to the employee, who is qualified and is responsible for performing the duties of:
conductor, assistant conductor, flagman, foreman, locomotive engineer, pilot, rail traffic controller, signalman, snow plow foreman, sub-foreman, switchtender.

M.
Wherever the following: engine, train, transfer or movement appear in these rules, special instructions or general operating instructions, the necessary action will be carried out by a crew member or crew members of the movement. In addition:

i Where only one crew member is employed, operating rules and instructions requiring joint compliance may be carried out by either the locomotive engineer or conductor, and

ii in the absence of a locomotive engineer on a crew consisting of at least two members, the conductor will designate another qualified employee to perform the rules required duties of the locomotive engineer.

iii The minimum operating crew requirement for a freight train or transfer carrying one or more loaded tank cars of dangerous goods is two (2) crew members.

iv The minimum operating crew requirement for a transfer using remote control locomotives (excluding distributed power) is two crew members.
### N.
The following abbreviations and acronyms as well as those authorized by special instructions may be used:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ack</td>
<td>Acknowledgement</td>
</tr>
<tr>
<td>A/Trk</td>
<td>Any Track</td>
</tr>
<tr>
<td>ANS</td>
<td>Auto Normal Switch</td>
</tr>
<tr>
<td>AWD</td>
<td>Automatic Warning Devices</td>
</tr>
<tr>
<td>B</td>
<td>Bell</td>
</tr>
<tr>
<td>B/W</td>
<td>Bell and Whistle</td>
</tr>
<tr>
<td>cnndr</td>
<td>Conductor</td>
</tr>
<tr>
<td>Com</td>
<td>Complete</td>
</tr>
<tr>
<td>CTC</td>
<td>Centralized Traffic Control System</td>
</tr>
<tr>
<td>xing</td>
<td>Crossing</td>
</tr>
<tr>
<td>xover</td>
<td>Crossover</td>
</tr>
<tr>
<td>DOB</td>
<td>Daily Operating Bulletin</td>
</tr>
<tr>
<td>E</td>
<td>East</td>
</tr>
<tr>
<td>ECM</td>
<td>Electronic Communications Method</td>
</tr>
<tr>
<td>eng</td>
<td>Engine</td>
</tr>
<tr>
<td>engr</td>
<td>Locomotive engineer</td>
</tr>
<tr>
<td>frmn</td>
<td>Foreman</td>
</tr>
<tr>
<td>frt</td>
<td>Freight</td>
</tr>
<tr>
<td>GBO</td>
<td>General Bulletin Order(s)</td>
</tr>
<tr>
<td>HBD</td>
<td>Hot Box and Dragging Equipment Detector</td>
</tr>
<tr>
<td>Jct</td>
<td>Junction</td>
</tr>
<tr>
<td>LCS</td>
<td>Local Control Switch</td>
</tr>
<tr>
<td>M</td>
<td>Mile</td>
</tr>
<tr>
<td>MPH</td>
<td>Miles per hour</td>
</tr>
<tr>
<td>N</td>
<td>North</td>
</tr>
<tr>
<td>NA</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>NMT</td>
<td>Non-main Track</td>
</tr>
<tr>
<td>no</td>
<td>Number</td>
</tr>
<tr>
<td>N/R</td>
<td>No Restrictions</td>
</tr>
<tr>
<td>OCS</td>
<td>Occupancy Control System</td>
</tr>
<tr>
<td>psgr</td>
<td>Passenger</td>
</tr>
<tr>
<td>PSO</td>
<td>Permanent Slow Order</td>
</tr>
</tbody>
</table>
RTC may use approved office abbreviations for station and subdivision names and for controlled points when entering addresses on computer generated forms. The normal abbreviations for days of the week and calendar months may be used.

O.

In these rules when the distance prescribed for the placement of signals, signs or flags is not possible due to track configuration, the maximum distance available applies. If the maximum distance available will place an advance flag at the same location as the flag it governs the approach to, such advance flag need not be placed but such must be indicated in the GBO.
TIME AND TIME TABLES (Rule 1 to 8)

1. TIME
The 24 hour system will be used and will be expressed in four digits. The digits 2359 or 0001 will be used to express the time at midnight.

2. WATCHES
Every conductor, assistant conductor, locomotive engineer, pilot, foreman, snow plow foreman and such other employees as the company may direct, shall, when on duty, use a reliable watch that indicates hours, minutes and seconds and shall;

i. be responsible to ensure that it is kept in proper working condition so that it does not reflect a variation of more than 30 seconds in a 24 hour period;

ii. set it to reflect the correct time if it reflects a variation of more than 30 seconds;

iii. before commencing work, compare the time on their watch with a railway approved time source. Where a railway approved time source is not accessible, obtain the correct time from the RTC or by comparing with another employee who has obtained the correct time. Every crew member assigned to train, transfer or yard service shall compare the time with one another as soon as possible after commencing work.

Railway approved time sources:

(a) National Research Council (NRC) coordinated universal time signal
   - English: 613-745-1576
   - French: 613-745-9426

(b) Connecting to CN radio system and initiating DTMF
   - *7899#
   - *7988#

Time is given in Eastern Time; employees must ensure the hour factor of correct time obtained is properly interpreted for their time zone.

The clock on the Railway Supplied Electronic Devices (RSED) is not an approved time source.

3. TIME IN EFFECT
Special instructions will indicate whether Standard Time, Daylight Saving Time or other designated time is in effect.

4. NOTICE OF TIME CHANGE
Notice of time change will be given by operating bulletin and posted at least 72 hours prior to the time change taking effect. Notice will also be given by GBO at least 24 hours prior to the change and for not less than 6 days after it takes effect.

5. EMPLOYEES ON DUTY WHEN TIME CHANGES
Each employee on duty when time changes, who is required to use a watch, must change time as follows:

i. From Standard Time to Daylight Saving Time: At 0200 Standard Time, set the time ahead one hour to indicate 0300 Daylight Saving Time;
ii From Daylight Saving Time to Standard Time: At 0200 Daylight Saving Time, set the time back one hour to indicate 0100 Standard Time; and immediately verify correct time according to Rule 2 clause (iii).

6. TIME TABLES
Each time table, from the moment it takes effect, supersedes the preceding time table.

7. NOTICE OF NEW TIME TABLE OR SUPPLEMENT
Notice will be given by operating bulletin and posted at least 72 hours prior to a new time table or supplement taking effect. Notice will also be given by GBO at least 24 hours prior to the new time table or supplement taking effect and for not less than 6 days after it takes effect. Notice must also be communicated to all other affected employees.

8. SYMBOLS AND DIAGRAMS
(a) The following symbols when used in the time table indicate:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Special Derail</td>
</tr>
<tr>
<td>Y</td>
<td>Wye</td>
</tr>
<tr>
<td>*</td>
<td>See footnote</td>
</tr>
<tr>
<td>+</td>
<td>Interlocking - see footnotes.</td>
</tr>
</tbody>
</table>

(b) Method of control and the limits of single track or multi-track will be indicated in the time table.

(c) The location of each interlocking, non-interlocked drawbridge and non-interlocked railway crossing at grade will be indicated in subdivision footnotes or special instructions.

(d) Siding capacity and the extent of TGBO and DOB limits will be indicated in time table columns, to the side of the station column or in subdivision footnotes.
11. FUSEES

(a) A movement approaching a red fusee burning on or near its track, or beyond the nearest rail of an adjacent track, must proceed at REDUCED speed to a point two miles beyond the location of the fusee. If moving at other than REDUCED speed, the movement must immediately reduce to that speed.

(b) A fusee should not be placed on a public crossing at grade or where it may cause fire.

(c) When the fusee is located on the track occupied by an approaching movement operating at REDUCED or RESTRICTED speed as required by other than Rule 11, a stop must be made before passing the location of the fusee.

12. HAND SIGNALS

(a) Employees whose duties may require them to give hand signals must have the proper appliances, keep them in good order and ready for immediate use. Night signals must be used from sunset to sunrise and when day signals cannot be plainly seen.

Note: The hand or a flag displayed in the same manner as the lantern, which is illustrated in the following diagrams, gives the same indication.

METHOD OF DISPLAY AND INDICATION

i. Swung from side to side at right angle to the track.

   STOP

   ![Diagram of hand signal STOP]

ii. Swung in a circle at right angle to the track at a speed in proportion to the speed required.

   MOVE BACKWARD

   ![Diagram of hand signal MOVE BACKWARD]

iii. Raised and lowered at a speed in proportion to the speed required.
MOVE FORWARD

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

(b) A signal given to move forward or move backward must be given in relation to the front of the controlling locomotive.

(c) A signal must be given in sufficient time before the required action to permit compliance. It must be given from a point where it can be plainly seen, and in such a manner that it cannot be misunderstood. If there is doubt as to the meaning of a signal, or for whom it is intended, it must be regarded as a stop signal.

(d) Whenever practicable, when switching is being performed, required signals shall be given directly to the locomotive engineer.

(e) When moving under the control of hand signals, the disappearance from view of either the crew member or lights by which signals controlling the movement are being given, must be regarded as a stop signal.

(f) A crew member, whose movement is clear of the main track, must not give an approaching movement a hand signal to move forward.

(g) Where radio is used in lieu of hand signals, employees will be governed by Rule 123.1.

13. ENGINE BELL

(a) The engine bell must be rung when:

   i an engine is about to move, except when switching requires frequent stopping and starting after the initial move;
   
   ii passing any movement standing on an adjacent track;
   
   iii approaching, passing or moving about station facilities or shop track areas; and
   
   iv one-quarter of a mile from every public crossing at grade (except within limits as may be prescribed in special instructions) until the crossing is fully occupied by the engine or cars. At crossings where engine whistle signal 14(l) is applicable the engine bell need not be rung.
   
   v Approaching and passing wayside employees.

(b) Should the engine bell fail on the lead locomotive in the consist, repairs must be made as quickly as possible. If repairs cannot be made the movement may proceed to the first point where repairs can be made. The engine bell if available on another locomotive in the consist will be rung continuously or operated by another member of the crew, when available, under the direction of the locomotive engineer.

14. ENGINE WHISTLE SIGNALS

NOTE:
Wherever the words “engine whistle” appear in these rules they also refer to “engine horn”. Signals prescribed by this rule are illustrated by “o” for short sounds; “___” for longer sounds.

Engine whistle signals must be sounded as prescribed by this rule, and should be distinct, with intensity and duration proportionate to the distance the signal is to be conveyed. Unnecessary use of the whistle is prohibited.

Radio must not be used in lieu of engine whistle signals for indications prefixed by the symbol (#).

(a) o  
When standing - braking system is equalized; angle cock may be closed.

(b) o o  
Note: Not applicable when switching.

(i) Answer to a “stop” signal (except a fixed signal).

(ii) Answer to any signal not otherwise provided for.

(e) ooo ooo  
To notify track forces of fire on or near the right of way (to be repeated as often as required).

(f) Succession of short sounds  
(#) Alarm for persons or animals on or near the track.

(l) ___ ___ o ___  
(i) (#) At public crossings at grade: A whistle post will be located 1/4 mile before each public crossing where required. Whistle signal must be sounded by movements:

• exceeding 44 MPH, at the whistle post
• operating at 44 MPH or less, in order to provide 20 seconds warning prior to entering the crossing.

Whistle signal must be prolonged or repeated until the crossing is fully occupied.

EXCEPTION: Not applicable when manual protection is to be provided or when shoving equipment other than a snow plow over a crossing protected by automatic warning devices.

(ii) (#) At other whistle posts indicated in special instructions.

(iv) Special instructions will govern when such signal is prohibited in whole or in part.

(r) In case of engine whistle failure the engine bell must be rung continuously;

(ii) approaching and passing station facilities, yards and public crossings at grade. In addition, the movement must not exceed 25 MPH entering each public crossing at grade which is not protected by automatic warning devices, until such crossing is fully occupied.

(t) When a snow plow is operated ahead of an engine, the employee in charge of the snow plow must sound engine whistle signals 14(f) and 14(l). All other engine whistle signals must be sounded by the locomotive engineer as prescribed by the rule.

17. HEADLIGHT  
Movements headed by equipment equipped with a headlight must display the headlight:

(a) at full power in the direction of travel approaching all public crossings at grade until such crossings are fully occupied;

(b) at full power in the direction of travel while moving on the main track;

(c) on both ends of the engine while moving on non-main track but may be extinguished on the end coupled to cars.

EXCEPTIONS: When not approaching a public crossing at grade the headlight may be dimmed:

(i) approaching or being approached by an opposing movement;
on a passenger carrying train, approaching a location where passengers will entrain or detrain;

iii facing oncoming vehicles at night which may be affected on adjacent roadways; or

iv when weather conditions cause the vision of the operating crew to be impaired.

v the headlight may be dimmed, or extinguished, when stopped.

18. HEADLIGHT FAILURE

(a) If the headlight on a movement fails and repairs cannot be made, ditch lights will be used in lieu of the headlight and the movement may proceed.

(b) If all headlights and ditch lights have failed, such lights as are available must be used proceeding to the first point where repairs can be made. At public and private crossings at grade not protected by automatic warning devices, movements must not exceed 10 MPH entering the crossing unless it is known to be clear of traffic and will remain clear until occupied.

19. DITCH LIGHTS

A train must have ditch lights displayed continuously in the direction of travel when the headlight is required to be displayed full power.

If ditch light(s) fail en route, the movement may proceed to the next point where repairs can be made.

26. BLUE SIGNAL PROTECTION

(a) A blue flag by day, and in addition a blue light by night or when day signals cannot be plainly seen, displayed at one or both ends of equipment indicates that workmen are in the vicinity of such equipment. On a track which permits entry of a movement from one end only, a blue signal displayed between the equipment and the switch permitting entry indicates that workmen are in the vicinity of such equipment. When such signals are displayed the equipment must not be coupled to or moved. The removal of the signal from one or both ends of equipment indicates that no workmen are in the vicinity of the equipment and such equipment may be coupled to or moved.

**EXCEPTION:** When repairs must be undertaken on a manned movement, the locomotive engineer must be notified before repair work is commenced. When so notified, the movement must not be moved nor the brakes applied or released until the workmen have advised that they are in the clear.

(b) Other equipment must not be placed on the same track which will block a clear view of the blue signal(s) without first notifying the workmen. When equipment is placed on the same track, the movement placing such equipment must remain on that track until the workmen have relocated the blue signal(s) to include the additional equipment.

(c) Each class of workmen will display the blue signal(s) and the same class of workmen only are authorized to remove them.

(d) Special instructions will govern the use of other approved methods of protecting workmen performing equipment repairs or inspections.

(e) When protection is required on a track where the kicking of equipment is permitted per Rule 113.5(a):

   i lock switch(es) with a special lock, in a position to prevent a movement from entering the working limits; or

   ii a blue signal displayed per (a) and a derail locked in the derailing position with a special lock.
27. SIGNAL IMPERFEKTLY DISPLAYED

(a) Except as provided in paragraph (b), a fixed signal which is imperfectly displayed, or the absence of a fixed signal where one is usually displayed, must be regarded as the most restrictive indication that such signal is capable of displaying. An imperfectly displayed signal must be communicated to the proper authority as soon as possible.

(b) Where a block or interlocking signal is observed with one or more lights extinguished, and at least one light remains displaying either green or yellow, movements may proceed reducing to SLOW speed through turnouts, when practicable, preparing to stop at the next signal.

EXCEPTION: Where a signal displays a solid yellow on the bottom position and one or all of the remaining positions are extinguished, a movement approaching such signal operating:

- at restricted speed;
- prepared to stop; or
- prepared to comply with restricted or reduced speed;

must consider the signal as displaying RESTRICTING.

(c) When a signal is known or suspected of being damaged, it must be regarded as displaying the most restrictive indication that can be given by that signal.

(d) When a block or interlocking signal displays an indication that is in other than the normal progression in relationship to the indication of the advance signal to that signal, the movement must stop immediately consistent with safe train handling practices and contact the RTC or signalman for further instructions.

(e) Repairs to damaged signals must not be made by other than qualified employees. Signals that have been knocked over must not be re-erected by other than an authorized employee. If it is known or suspected that a signal bungalow has been damaged, such fact must be reported to the RTC immediately.

33. SPEED COMPLIANCE

If speed requirements for their movement are exceeded, crew members must remind one another of such requirements. If no action is then taken, or if the locomotive engineer is observed to be non-responsive or incapacitated, other crew members must take immediate action to ensure the safety of the movement, including stopping it in emergency if required.

Speeds indicated are maximum authorized speeds between locations named, but do not modify any rule or instruction that may require a lower speed. Maximum speed must be maintained to the extent possible, consistent with safety and efficiency. Unnecessary delays must be avoided.

34. FIXED SIGNAL RECOGNITION AND COMPLIANCE

(a) The crew on the controlling engine of any movement and snow plow foremen must know the indication of each fixed signal (including switches where practicable) before passing it.

(b) Crew members within physical hearing range must communicate to each other, in a clear and audible manner, the indication by name, of each fixed signal they are required to identify. Each signal affecting their movement must be called out as soon as it is positively identified, but crew members must watch for and promptly communicate and act on any change of indication which may occur.

The following signals/operating signs must be communicated:

i Block and interlocking signals;
ii Rule 42 and 43 signals;
iii One mile sign to interlocking;
iv One mile sign to hot box detector;
Stop sign;  
OCS begins sign;  
Red signal between the rails;  
Stop signal displayed by a flagman;  
A switch not properly lined for the movement affected;  
Advance Permanent Slow Order (PSO) Signs; and  
Zone speed Signs where there is a reduction in speed from the previous zone.

If prompt action is not taken to comply with the requirements of each signal indication affecting their movement, crew members must remind one another of such requirements. If no action is then taken, or if the locomotive engineer is observed to be incapacitated, other crew members must take immediate action to ensure the safety of the movement, including stopping it in emergency if required.

35. EMERGENCY PROTECTION
This rule does not authorize main track occupancy or track work.

(a) Any employee discovering a hazardous condition, which may affect the safe passage of a movement, must by the use of flags, lights, fusees, radio, telephone, or other means, make every possible effort to stop and/or provide necessary instructions to any movement that may be affected. Flag protection must be provided on main track unless or until otherwise relieved of the requirement.

(b) A flagman must go the required distance from the condition, and in each direction when possible, to ensure that an approaching movement will have sufficient time and distance to be able to stop before the condition. Unless otherwise provided, a flagman must go at least two miles from the condition to a location where there will be an unobstructed view of the flagman from an approaching movement.

When a movement is observed approaching, the flagman must display a stop signal using a red flag by day or a lighted red fusee by night or when day signals cannot be plainly seen. The flagman must continue to display a stop signal until the movement being flagged has:

1. acknowledged the stop signal with engine whistle signal 14 (b) (two short);
2. come to a stop; or
3. reached the location of the flagman.

(c) A movement stopped by a flagman must not proceed until so instructed by the flagman.

(d) A flagman must be equipped with a red flag and eight red fusees. The presence of an unbroken seal verifies that a flagging kit is properly supplied.
PROTECTION OF TRACK WORK AND TRACK CONDITIONS (Rule 40 to 45)

40. GENERAL

(a) Special instructions will specify when Rules 42/842, 43/843 and 849 are applicable on non-main track.

(b) When designated by time table footnotes or special instructions that TGBO and/or DOB are applicable on a track that is non-main track, protection of track work and track conditions may be provided as prescribed by Rules 42/842 and 43/843.

41. PROTECTION OF TRACK WORK ON NON-MAIN TRACK

This rule is not applicable on main tracks, signalled sidings and other signalled tracks, or on other tracks specified in special instructions.

i A movement required to operate on a track protected by a red signal between the rails or a switch locked with a special lock must be stopped before passing it and be governed by any instructions from the foreman.

ii Only the foreman or an employee authorized by the foreman may remove the red signal and/or special lock.

iii Equipment must not be left on the same track that will block a clear view of any red signal.

NOTE: Foreman must refer to Rule 841
42. PLANNED PROTECTION

NOTE: Foreman must refer to Rule 842

(a) Rule 42 signals must not be in place more than 30 minutes prior to or after the times stated in the GBO unless provided for in the GBO.

(b) A movement in possession of the Form Y must not proceed beyond the red signal located at the identifiable location stated in the GBO, enter the track limits stated in the GBO, or make a reverse movement within such track limits until instructions have been received from the foreman named in the GBO.

When a specific track is to be used, instructions from the foreman must specify the track upon which the instructions apply.

When permission is granted from the foreman, the current time and location / mileage of the movement must be recorded next to the Rule 42 GBO. All crew members, other than the employee that recorded it, must acknowledge and initial the time and location. This GBO must be retained until the completion of the shift.

(c) The instructions must be repeated to, and acknowledged by, the foreman named in the GBO before being acted upon.

(d) When a signalled turnout is within two miles of Rule 42 protection which does not apply on all tracks, every movement must approach such location prepared to comply with the requirements of Rule 42 until it is known which route is to be used.

When a movement communicates with a foreman for instructions, the engine initials and number will be utilized.
43. SLOW TRACK PROTECTION

**NOTE:** Foreman must refer to Rule 843.

Form V GBO slow track protection will be marked in the field by a:

i. yellow signal to the right of the track as seen from an approaching movement at least two miles in each direction from the outermost limits indicated in the GBO, and

ii. green signal to the right of the track as seen from an approaching movement in each direction, immediately beyond the defect.

When a Rule 43 restriction is located at a single mile point, one green signal will be displayed to identify the restriction and may be displayed to either side of the track.

When the placement of signals as prescribed by Rule 43 is delayed, the following will be added to the Form V: “Signals may not be in place.”

(a) A movement must not exceed the speed requirement of the GBO while at/or between opposing green signals.

(b) When a signalled turnout is within two miles of a speed restriction which does not apply on all tracks, every movement must approach such location prepared to comply with the speed restriction until it is known which route is to be used.

44. UNUSUAL TRACK SIGNAL CONDITIONS

(a) In the absence of any of the signals prescribed by Rule 42, between the times stated in a Form Y, a movement must be governed as though the signals are properly placed. Such condition must be communicated to the RTC as quickly as possible.

*Crews on approaching movements may be advised by the foreman or the RTC of the absence of the signals. When this advice has been provided to the affected movement, such movements need not to communicate to the RTC the absence of signals.*

(b) A movement that encounters a yellow over red signal within the 30 minutes provided for in Rule 42(a), may proceed on the instructions received from the foreman named in the GBO. If the foreman cannot be contacted, the movement
must be prepared to stop at a red signal and, if no red signal is encountered at the location stated in the GBO, the RTC must be advised.

(ii) A movement that encounters a red signal within the 30 minutes provided for in Rule 42(a), must stop, unless authorized to proceed on the instructions received from the foreman named in the GBO. If the foreman cannot be contacted, a crew member must communicate with the RTC as quickly as possible and be governed by instructions received.

(iii) A movement that encounters a yellow over red signal or red signal, outside the 30 minutes provided for in Rule 42(a) or without being in possession of a Form Y requiring the placement of such signal, must stop. A crew member must communicate with the RTC as quickly as possible and be governed by instructions received.

(iv) If the TGBO/DOB system and the engineering supervisor for the territory indicate that Rule 42 is not or will not be in effect within the limits of the signal, the RTC may authorize the movement to resume normal speed. The engineering supervisor will arrange for removal of the signals that may include having the crew on a movement pick up the signals.

(c) A movement within the track limits of a Form Y, at the time such protection takes effect, must be stopped unless a crew member is otherwise instructed by the foreman named in the GBO. A movement approaching the limits of a Form Y, up to 30 minutes prior to the time such protection takes effect, must attempt to contact the foreman for instructions.

(d) In the absence of one or more of the signals prescribed by Rule 43, the movement will be governed by the requirement of the Form V. Such condition must be communicated to the RTC as quickly as possible.

(e) A movement that encounters a yellow or green signal without a GBO requiring the placement of such signal, must reduce speed to 10 MPH and immediately communicate with the RTC. The movement will be governed by instructions received from the RTC. If the TGBO/DOB system and the engineering supervisor for the territory indicate that Rule 43 is not or will not be imminently in effect within the limits of the signal, the RTC may authorize the movement to resume normal speed. The engineering supervisor will arrange for removal of the signals that may include having the crew on a movement pick up the signals.

(f) When a rail break has been detected by an engineering employee and it is safe to operate over the break at a speed less than posted speed, the RTC will provide GBO protection to affected movements stating the authorized speed over the break and how such location is marked in the field, by either a Rail Break Sign or foreman, at the break. Signals required by Rule 43 will not be in place.

45. SIGNAL PLACEMENT MULTI-TRACK

Except on a subdivision designated in special instructions, signals required by Rules 42/842 and 43/843, must be placed to the outside of the outermost track(s) and not between the main tracks.
TWO TRACKS; restriction on both tracks

TWO TRACKS; restriction on one track only

THREE TRACKS; restriction on No 2 track

Track Limits
OPERATION OF MOVEMENTS (Rule 62 to 115)

62. UNATTENDED ENGINES
When an engine is left unattended outside of an attended yard or terminal:
(a) the cab of the engine must be secured to prevent unauthorized entry; and
(b) subject to (c), the reverser must be removed from the engine;
(c) during subzero temperatures, an engine that does not have a high idle feature is exempt from (b).

63. FREIGHT TRAIN REQUIREMENTS
Freight trains with cars must operate with TIBS or a manned caboose.
EXCEPTION: A freight train that must be separated in order to double, set off or lift cars, cut a crossing or for other similar situations may operate without a TIBS or manned caboose to the extent necessary to perform these tasks, at a speed not exceeding 25 MPH while handling cars.

64. TRANSFER REQUIREMENTS
i. The locomotive engineer must verify that there are sufficient operative brakes to control the transfer, confirmed by a running test as soon as possible.
ii. Except where block signals provide protection, transfers must have air applied throughout the entire equipment consist. The last three cars, if applicable, must be verified to have operative brakes.
iii. A transfer carrying dangerous goods must have air applied throughout the equipment when operating within any method of control.
iv. Remote control locomotives in transfer service must be operated with two operative operator controlled units (OCU).

65. ENGINE IN YARD SERVICE REQUIREMENTS
An engine in yard service that is required to enter main track to double over, take head room or cross over a main track will not be considered a train or transfer except in application of Rules 301-315 and 560-578.

66. SECURING EQUIPMENT AFTER AN EMERGENCY BRAKE APPLICATION ON GRADE
(a) When a movement experiences an emergency brake application on a heavy or mountain grade, the operating crew must immediately provide details of the situation to the proper authority, and be governed by any additional instructions received from the proper authority.
(b) When a movement experiences an emergency brake application and any portion of the movement is located on a heavy or mountain grade, the entire movement must be considered to be on a heavy or mountain grade.
(c) In the event of a derailment or a movement separation on heavy grade or mountain grade, the portion of the movement at greatest risk of unintended movement must be secured first.
(d) When a movement experiences an emergency brake application on a mountain grade, the handbrakes must be immediately applied as per (f) before attempting to recover the air brake system.
(e) When a movement experiences an emergency brake application on a heavy grade
i  the movement must be secured immediately per (f) if any of the following conditions exist:

- ambient temperature is -20 degrees Celsius or colder;
- ambient temperature is between -15 and -19 degrees Celsius, and snow is three inches or greater above the top of rail;
- the crew has experienced unusual braking conditions or difficulty controlling speed;
- doubt exists as to the ability to safely recover and control the movement;
- more than one emergency brake application has occurred on the grade; or
- operating conditions do not permit a recovery attempt

ii  If none of the conditions in (e) (i) apply, attempt to recover from the emergency brake application. If air does not recover, the movement must be immediately inspected for cause. If cause cannot be determined or immediately corrected, so that air can recover, the movement must be secured per (f).

(f)  When securing the movement using the handbrake requirement table, the following apply

i  If less equipment is present in the movement than required by the following table, handbrakes must be applied on all equipment.

ii  The retarding force of locomotive(s) is not included in the following handbrake requirements, and must not be used to diminish these requirements.

<table>
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<tr>
<th>Totals Tons</th>
<th>1.01-1.2</th>
<th>1.21-1.4</th>
<th>1.41-1.6</th>
<th>1.61-1.8</th>
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<td>151</td>
<td>164</td>
<td>184</td>
<td>200</td>
<td>216</td>
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</tbody>
</table>

70. REMOTE CONTROL OPERATION

(a) Where a remote control operation is comprised of two or more employees, two operative OCU must be used.

(b) Should one OCU become inoperative:

i  Repairs must be made as soon as possible.

ii  The tour of duty may continue with one operative OCU.
iii The movement may operate on main track in order to proceed to the first point where repairs can be made, provided an employee other than the one with the operative OCU is positioned to operate the emergency brake valve.

(c) Any crew member other than the employee with the controlling OCU must not foul the equipment without first obtaining verbal confirmation of positive protection.

(d) OCU must not be operated while moving on other than the movement the employee is controlling.

(e) When an engine begins to move, a crew member must visually verify the direction the movement is travelling in.

(f) Movements must not exceed 15 MPH.

(g) When coupling to equipment, the employee protecting the leading end of the movement must have the controlling OCU.

(h) Prior to stopping or coupling to equipment, the OCU must be set to its lowest speed.

80. MAIN TRACK AUTHORIZATION

(a) A movement must not foul or enter a main track without authority. Authority is conveyed in:

<table>
<thead>
<tr>
<th>CTC</th>
<th>By signal indication, RTC permission or written authority.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCS</td>
<td>Clearance</td>
</tr>
</tbody>
</table>

(b) If a movement occupies or fouls a main track or siding controlled territory without authority, or passes a block or interlocking signal indicating stop without authority to pass such signal; it must be stopped and protection as required by Rules 35 and 125 initiated. The RTC or signalman must be advised as soon as practicable.

i The RTC or signalman will issue instructions as necessary.

ii If the instructions include the authority to proceed or reverse direction, unless relieved of the requirement by the RTC or signalman:

- any dual control or power-operated switches occupied by the movement must be examined to ensure that the switch points are properly lined for the route to be used and no part of the switch is damaged or broken.

- Rule 104.2(b) must be complied with at dual control switch(es). In application of Rule 104.2(b), the movement may be moved before the dual control switch is operated by hand, but only sufficient distance to clear the wheels from the actual switch points.

81. DESIGNATION OF MULTI-TRACK

(a) Where two main tracks are in service, unless otherwise directed in special instructions, they must be designated as;
Where more than two main tracks are in service they must be numbered. Unless otherwise specified in the time table, where time table directions are eastward and westward, tracks will be numbered from the north as, “No 1 track”, “No 2 track” and so on; where time table directions are northward and southward, tracks will be numbered from the east as, “No 1 track”, “No 2 track”, and so on.

82. LIMITS OF AUTHORITY

Specific limits contained in written authorities must be defined by identifiable locations. These may include station names, switches, signals, mile posts and other signs or infrastructure that are identified with a specific mileage.

(a) When a switch or signal is used to define the limits, the authority extends only to the fouling point of the switch or to the signal location.

(b) When mile posts or specific mileages are used to define the limits, the authority extends only to the specific mileage indicated.

(c) When station names are used to define the limits, the authority does not include the use of the main track between the siding switches at either station named. Where there is no siding, authority extends to the station name sign.

83. OPERATING BULLETINS

(a) Operating bulletins will be issued by the proper authority and in the prescribed format. Employees responsible for posting or displaying operating bulletins must record on each bulletin the time and date it is posted or displayed. Operating bulletins will only contain information or instructions pertaining to the operation of movements. Duplicate bulletin numbers must not be in effect at the same time. **When Operating Bulletins are received on CN Electronic Operating Manual an acknowledgement by the employee is required.**

(b) Before commencing work at their home location where operating bulletins are posted or displayed, every employee responsible for the operation or supervision of movements must read and understand the operating bulletins that are applicable to the territory that they will operate on. **When employees are assigned a Railroad Supplied Electronic Device with CN Electronic Operating Manual, before each tour of duty the employee must read, understand and acknowledge any new Operating Bulletins on their device.**

(c) A Summary bulletin, containing the number, date and contents of, or reference to, each operating bulletin remaining in effect, will be issued **the first of May and November.** Operating bulletins of a previous date, which are not included or referred to in the Summary bulletin, become void. Summary bulletins may also contain full content of operating bulletins that take effect on or after the effective date of the Summary bulletin and will not be posted or displayed. All employees responsible for the operation or supervision of movements must have a copy of the current Summary bulletin accessible while on duty. **Summary bulletins are not required for employees using CN Electronic Operating Manual.**

Employees must have a copy of Operating Bulletins that affect them accessible while on duty or must have noted the changes in the appropriate section of their operating manual.
84. REPORTING DELAYS
The conductor must ensure that the RTC is promptly advised of any known condition which may delay their train or transfer.

85. TRACK RELEASE REPORTS
(a) The conductor will ensure the RTC is promptly advised of the time their movement has arrived, left or cleared a location or at a time specified by the RTC or after clearing the limits of the last proceed clearance for that subdivision.
(b) Prior to making such report, the conductor must confirm with other crew members the accuracy of the information to be provided. The location and time must be recorded by a crew member.
(c) When a track release is transmitted to the RTC, the employee transmitting must include the movement identification and read the location and time from the recorded information. The RTC must, as it is transmitted, verify the movement identification and record the location and time into the computer assisted system. If correct, the locomotive engineer must confirm correctness of the report by using the recorded information to verify the location and time to the RTC.

101. PROTECTION AGAINST EXTRAORDINARY CONDITIONS
(a) A movement must be fully protected against any known or suspected condition that may interfere with its safe passage.
(b) A movement must stop at once and be fully inspected when it is known or suspected to have struck any object that may interfere with its safe operation. The RTC must be notified as quickly as possible.
(c) When a portion of a movement is left on the main track, precautions must be taken by the crew to protect the remaining portion against the return move. The crew of a distributed power train required to leave the tail end portion on the main track while doubling or switching and the head end portion includes a locomotive as the last piece of equipment, must advise the RTC and any foreman who has provided instructions within protected limits or other affected movement(s). The RTC must not issue or authorize a follow-up TOP behind this train until direct communication with the crew confirms the location of the tail end portion.

101.1 DIMENSIONAL TRAFFIC
When the dimensions of traffic require that special arrangements be made to permit moving past other movements, the wide traffic will be protected by the RTC against other main track movements. Advice of such protection will be provided to the crew in writing or verbally.

101.2 EQUIPMENT LEFT ON MAIN TRACK
Equipment may be left on the main track when protected by:

- clearance; or
- Form TGBO.

Communication to the RTC must include the location of the equipment and the outer limits of the Form T protection must be expressed in whole miles or by other identifiable locations. In CTC and controlled interlockings, once the RTC has been advised, Form T protection need not be provided. The RTC
must inform each movement, required to enter the occupied track, of the location of the unattended equipment.

102. EMERGENCY STOP PROTECTION

(a) The crew of a movement stopping as a result of an emergency brake application, or other abnormal condition, which may cause an adjacent main track to be obstructed, must:

i. immediately transmit a radio broadcast on the standby channel in the following manner: “EMERGENCY, EMERGENCY, EMERGENCY, (movement) on (designated track), stopped (stopping) in emergency between mile _______ and mile_______ (subdivision)”;

ii. as soon as possible, advise the RTC of the movement’s emergency stop location, indicating whether adjacent tracks and tracks of other railways are liable to be obstructed;

iii. repeat the emergency broadcast outlined in (i) at intervals not exceeding 90 seconds until advised by the RTC that all affected movements on other tracks have been secured, stopped or advised of the emergency stop, or it is known that adjacent tracks or tracks of other railways are safe and clear for movements;

iv. if unable to comply with (i), (ii), (iii), the adjacent track must be protected as per Rule 35(b) EMERGENCY PROTECTION.

v. When tracks of other railways may be obstructed the emergency radio broadcast must be transmitted on their standby channel if practicable.

(b) Other movements must;

i. stop at once if closely approaching the location stated in the emergency broadcast; or

ii. stop prior to reaching the location stated in the emergency broadcast; and

iii. after stop has been made, proceed prepared to stop short of an obstruction until it is known that the track is safe and clear.

(c) The RTC must:

i. immediately secure and advise affected movements on other tracks of the location of the movement in an emergency stop;

ii. by use of a dedicated emergency communication system, alert the RTC controlling adjacent tracks of other railways liable to be obstructed, providing the location of the emergency stop; and

iii. advise the crew of the movement involved in the emergency stop when all other affected movements have been advised of the condition.

(d) Rule 102 is applicable to a movement operating on a track that is adjacent to a siding where siding control territory rules (SCT) are applicable.

103. PUBLIC CROSSINGS AT GRADE

(a) Where a railway track and a public road share the same roadbed and there is no fence or other barrier between them, moving rail cars not headed by an engine or when headed by a remotely controlled engine must be protected by a crew member on the leading car or on the ground, in a position to warn persons standing on, or crossing, or about to cross the track.

(b) When required by special instruction or when cars not headed by an engine, snow plow or other equipment equipped with a whistle and headlight, are moving over a public crossing at
grade, a crew member must provide manual protection of the crossing until the crossing is fully occupied.

**EXCEPTION:** Manual protection of the crossing is not required provided the crossing is equipped with automatic warning devices and a crew member is on the leading car to warn persons standing on, or crossing, or about to cross the track. This exception does not modify the application of Rule 103.1 (a).

(c) Crew members must not give vehicular traffic a hand signal to proceed over a crossing.

(d) Intentionally left blank.

(e) Equipment must not be left standing within 100 feet of the travelled portion of a public or private crossing at grade, except where it is necessary to leave such equipment for loading or unloading.

Equipment left unattended on a siding, near a public crossing at grade not protected by automatic warning devices, must be left at the minimum distance indicated on the chart for the maximum train speed at that location. If unable to leave equipment the required distance, the RTC must be advised of the estimated distance and direction from the crossing where the equipment will be left.

<table>
<thead>
<tr>
<th>Where Maximum Train Speed Is (MPH)</th>
<th>Equipment is to be Left at Least (Feet) from Crossing</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>15</td>
<td>200</td>
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<td>20</td>
<td>300</td>
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<td>25</td>
<td>375</td>
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<td>30</td>
<td>450</td>
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<td>35</td>
<td>525</td>
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<tr>
<td>40</td>
<td>600</td>
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<tr>
<td>45</td>
<td>675</td>
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<tr>
<td>50</td>
<td>750</td>
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<tr>
<td>55</td>
<td>825</td>
</tr>
<tr>
<td>60</td>
<td>900</td>
</tr>
<tr>
<td>65</td>
<td>975</td>
</tr>
<tr>
<td>70</td>
<td>1050</td>
</tr>
<tr>
<td>75</td>
<td>1125</td>
</tr>
<tr>
<td>80</td>
<td>1200</td>
</tr>
<tr>
<td>85</td>
<td>1275</td>
</tr>
<tr>
<td>90</td>
<td>1350</td>
</tr>
<tr>
<td>95</td>
<td>1425</td>
</tr>
<tr>
<td>100</td>
<td>1500</td>
</tr>
</tbody>
</table>

**Example:** Maximum train speed at the location is 50 MPH. Required minimum distance from the public crossing is 750 feet. Due to the length of traffic being set off in the siding, the equipment left will be approximately 300 feet east of the crossing – which has no automatic warning devices, resulting in a restricted view of trains approaching from the east (i.e.
westward trains). Crew advises RTC that equipment is located approximately 300 feet east of the public crossing. RTC will issue a GBO or written message to all affected westward trains restricting them to 20 MPH until crossing is fully occupied. Trains that receive such a restriction and do not find equipment in the siding when they pass it should advise RTC so the restriction can be removed from the system.

(f) Before switching or operating a remote control locomotive over an unprotected public crossing at grade where the view of the crossing by the locomotive engineer is obscured, arrangements must be made for a crew member or other employee to be in position to observe the crossing and give signals and instructions to the locomotive engineer as necessary.

(g) When providing manual protection of a crossing, a crew member or other qualified employee must be on the ground ahead of the movement, in a position to stop vehicular and pedestrian traffic before entering the crossing. A hand signal by day and a light or a lighted fusee by night will be used to give a signal to stop vehicular and pedestrian traffic over such crossing. The movement must not enter the crossing until a signal to enter the crossing has been received from the employee providing the manual protection.

When the crossing is known to be clear of traffic, and will remain clear until occupied, manual protection need not be provided.

Public crossings at grade without automatic warning devices, observed with missing or damaged crossbucks, are governed by Rule 103.1(h)

Unless otherwise indicated, a public crossing at grade must not be obstructed for more than five minutes when vehicular or pedestrian traffic is stopped waiting to cross. This instruction applies to:

- a movement switching;
- standing equipment; or
- standing track unit(s).

When emergency vehicles require passage, employees must cooperate to quickly clear the involved crossings

### 103.1 PUBLIC CROSSINGS AT GRADE WITH WARNING DEVICES

(a) When a movement passes over any public crossing at grade equipped with automatic warning devices, it will be necessary, before reversing over the crossing, for a crew member to provide manual protection of the crossing.

(b) Unless otherwise directed by special instructions, a main track movement over a public crossing at grade, equipped with automatic warning devices, which;

- i has stopped or is switching, on the main track in the vicinity of the crossing; or
- ii is entering the main track in the vicinity of the crossing; or
- iii has been authorized to pass a block or interlocking signal indicating Stop which is located within 300 feet of the crossing;

must not exceed 10 MPH from a distance of 300 feet from the crossing until the crossing is fully occupied by the movement. In addition, unless manually protected, the crossing must not be occupied until the warning devices are known to have been operating for at least 20 seconds.

**Applicable to item (iii):** At all other crossings within the block, movements must not exceed 15 MPH entering the crossing unless the warning devices are known to have been operating for at least 20 seconds prior to occupancy.

(c) Unless otherwise directed by special instructions, a movement on non-main track over a public crossing at grade, equipped with automatic warning devices, must not exceed 10 miles per hour from a distance of 300 feet until the crossing is fully occupied. **Not applicable on Subdivision Track.**
(d) At a public crossing at grade where special instructions require that warning devices be operated by pushbutton, or other appliances, or that movements stop at stop signs, movements affected must not occupy the crossing until the warning devices have been operating for at least 20 seconds. Pushbutton boxes must be closed and locked when not in use.

(e) Intentionally left blank.

(f) When advised by special instructions that rusty rail or other conditions may exist, occupancy of crossings with automatic warning devices must be manually protected unless it is known that warning devices have been operating for at least 20 seconds.

(g) At crossings equipped with automatic warning devices indicated in special instructions, movements must not accelerate by more than 5 MPH unless automatic warning devices are known to have been operating for at least 20 seconds.

   This instruction is applicable at all public crossings at grade.

(h) Employees observing the improper operation of any automatic warning device must notify the RTC or person responsible for the territory by the quickest available means. The person notified must immediately notify those charged with repair and/or responsibility.

   When AC power indicator light located on crossing protection signal bungalows is flashing, notify the RTC or person responsible for protecting defective crossings for that territory immediately.

   i On track which the RTC can prevent movements from accessing the crossing must be protected by the RTC using blocking or other methods of securement until all affected movements are advised in writing to apply Rule 103(g).

   EXCEPTION: A movement may be provided instructions verbally when:

   • within two controlled blocks of the crossing; or
   • there is no controlled block prior, within 25 miles.

   ii On track which the RTC cannot prevent access, the person responsible for the territory must instruct all affected movements to apply Rule 103(g).

(i) A movement following another movement within 1500 feet may not properly activate crossing warning devices and therefore, must not obstruct any public crossing at grade equipped with automatic warning devices until:

   • the warning devices are known to have been operating for at least 20 seconds;
   • gates, if any, are in horizontal position; or
   • a crew member applies Rule 103(g) at the crossing.

   Equipment or a track unit must not stand so as to cause the unnecessary operation of warning devices.

104. HAND OPERATED SWITCHES

   General

   (a) Operation of Switches - semi-automatic, spring, dual control or auto-normal switches operated by hand are considered hand operated switches, and all rules governing hand operated switches apply.

   (b) Except while being turned, each switch must be secured with an approved device. When a switch has been turned, the points must be examined and the target, reflector or light, if any, observed to ensure that the switch is properly lined for the route to be used.

   Point and Call

   To indicate the checks have been undertaken, the employee must:
• Point to the switch points and say “no gaps”
• Point from the switch points through the route to be used
• Point to the target, reflector or light, if any
• Once all of the above are confirmed, say the track ID for where the switch is lined

(c) A switch must not be turned while any part of a car or engine is between the switch points and the fouling point of the track to be used, except when making a running switch.

(d) Handling of main track hand operated switches by other than a crew member.

When arrangements are made for an employee to take charge of a switch(es), the movement must receive verbal confirmation that the switch has been restored to normal position. Verbal advice of switch position may be provided to a movement by an employee. The approaching movement must not act on such information unless advised that the employee is at the switch and will remain in charge of the switch.

(e) If it is known or suspected that either of the points or any part of a switch is damaged or broken, the switch must be protected until it can be made safe for use. A report must be made to the RTC or employee responsible for the territory by the quickest available means.

(f) When a switch point lock is provided, it must be locked when the switch is left in normal position. Employees must familiarize themselves with the location of switch point locks.

(g) Intentionally left blank.

Main Track Hand Operated Switches

Notes:

i A main track hand operated switch must display a reflectorized target, or light and target except in CTC or on a subdivision specified in special instructions.

ii At an electrically locked hand operated switch, instructions posted at the switch or in special instructions, will govern the operation of the switch and entry to the main track or interlocking route.

(h) Unless otherwise specified by special instructions, the normal position for a main track switch is for the main track route. Except as provided in paragraph (i), main track switches must be left lined and locked in normal position.

(i) Left in Reverse Position

A main track switch may be left in the reverse position when;

1. directed by GBO, clearance or special instructions, and protection has been provided against all affected movements,

2. attended by an employee, who must be in position to restore the switch to normal before it is occupied by an approaching movement on the main track,

3. occupied by equipment,

5. in OCS;

   i equipment is left on the main track,

   ii the equipment is left as close as practical to the switch, and

   iii operation over the same switch is required when returning to such equipment,

6. in CTC, equipment is left within the same controlled block. When this cannot be done, RTC permission must be obtained.

NOTES:

i Except when switching, main track switches when left in the reverse position, must be left locked.
ii Unless authorized to leave a main track switch in reverse position or so instructed by the RTC, an employee encountering a main track switch in reverse position must restore the switch to normal position and comply with the requirements of (iii).

iii An employee encountering a main track switch in normal position after having a warning that the switch is in reverse position must:

If the RTC cannot be contacted, the employee may leave that location, leaving the switch lined and locked in the normal position.

- communicate to other crew members or employee that the switch is restored to normal, and
- report to the RTC from the location of the switch i.e. physically situated at or having the switch in sight, or the switch at the time is occupied by a portion of the movement.

iv The RTC must not act on any report of switch position that was not received from the switch location. Additionally, the RTC must not remove protection for the reverse switch until it can be confirmed that there are no other movements authorized to leave the switch in the reverse position.

(j) Except when switching, when a movement is closely approaching or passing over a main track switch, other than a dual control switch, employees must keep at least 20 feet from the switch stand, and must, when practicable, on single track, stand on the opposite side of the track.

(k) On single track, a crew member of a movement stopped on the main track to meet or to be passed by another movement, will, when practicable, reverse the switch for the approaching movement and protect it unless relieved by a crew member of the other movement.

(l) Unless otherwise directed by special instructions, the normal position for a main track junction switch is when set for through movement on one subdivision.

(m) When a movement diverges from a main track, the switch used must not be restored to normal position until the fouling point has been cleared.

(n) The switches at both ends of a crossover are normal when set for a through movement on the other tracks. When a crossover is to be used, the switch in the track on which the movement is standing must be reversed first. Both switches must be reversed before crossing over. Before either switch is restored to normal position the movement must be clear of the crossover.

Hand Operated Non-Main Track Switches

(o) Unless otherwise specified by special instructions, non-main track switches, when equipped with a lock, must be lined in normal position and locked after having been used.

An employee handling a hand operated switch in SCT sidings must, from the location of the switch, communicate with another rules qualified employee to confirm the position in which the switch has been left lined and locked. The employee receiving this report must repeat it back to the employee who handled the switch.

Non-Main Track Crossovers

Unless otherwise specified by special instructions:

i The switches at both ends of a NMT crossover are normal when set for a through movements on each track;

ii When a NMT crossover is to be used, the switch in the track on which the movement is standing must be reversed first;

iii Both switches must be reversed before crossing over;

iv Before either switch is restored to normal position the movement must be clear of the NMT crossover

A NMT crossover must never be left lined with one switch reversed and the other normal
**EXCEPTION:** Switches on a NMT crossover may be left out of corresponding position when one end of the NMT crossover must be lined to prevent access on account of:

- Blue Signal Protection in accordance with CROR 26
- Protection of Track Work on NMT in accordance with CROR 41/841

Switches must be immediately restored to corresponding position after protection is no longer required.

**Main Track Switches in OCS Territory**

(p) Unless or until the switch is seen to be in normal position, movements approaching a main track hand operated switch in a facing point direction in OCS territory, unless otherwise governed by signal indication, must not exceed the following speeds from one-quarter of a mile of the switch:

<table>
<thead>
<tr>
<th>Category</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASSENGER</td>
<td>50 MPH</td>
</tr>
<tr>
<td>FREIGHT</td>
<td>45 MPH</td>
</tr>
<tr>
<td>FREIGHT handling Special Dangerous</td>
<td>40 MPH</td>
</tr>
</tbody>
</table>

(q) The employee handling a main track hand operated switch in non-signalled territory must, from the location of the switch, communicate with another employee to confirm the position in which the switch has been left, lined and locked. The employee receiving this report must repeat it back to the employee who handled the switch. Communication may be achieved by personal contact, radio or telephone. A lone employee unable to communicate with any employee other than the RTC, must communicate with the RTC.

### 104.1 SPRING SWITCHES

(a) A spring switch will be identified by a spring switch sign bearing the letters “SS”.

(b) Employees must keep clear of the switch handle while it is being lifted or released.

(c) When trailing through a spring switch, a movement that stops must not be reversed, nor slack taken, until the switch has been properly set by hand.

(d) When ice or snow conditions warrant, all movements must stop before trailing through a spring switch and examine the switch points, cleaning them if necessary.

(e) When a movement is required to operate over a spring switch in the facing point direction at RESTRICTED speed, a stop must be made before the leading wheels are on the switch points, and the switch points must be examined from a position on the ground.

   i) If the points are found to be properly closed the movement will be governed by the indication of the signal, if any.

   ii) If the switch points are not properly closed and cannot be closed by use of the switch handle, the points must be spiked in the proper position and the movement will be governed by the indication of the signal, if any. After operating over a spiked spring switch, the spike must be removed and the RTC or employee in charge notified as quickly as possible.

### 104.2 DUAL CONTROL SWITCHES

(a) Except as required by rule, a dual control switch must not be placed in hand position without permission from the RTC or signalman.
When a movement is required to operate over a dual control switch under a Stop indication, unless relieved of the responsibility by the RTC or signalman, the movement must not proceed until:

i. the selector lever is placed in “hand” position;

ii. the hand throw lever is operated until the switch points move in both directions with the action of the hand throw lever; and

iii. the switch is lined by hand for the route to be used. The selector lever must be restored to “power” position and locked, but not before the movement has occupied the switch points.

The RTC or signalman may relieve a crew of the requirements of paragraph (b) when automated office control devices confirm that dual control switches are properly lined for the route generated on the authority that will be issued to the movement.

When switching is to be performed over a dual control switch, in conjunction with Rule 577.1, the switch may be operated by hand after authority has been obtained as prescribed by Rule 577. The selector lever must be placed in “hand” position. The hand throw lever must be operated until the switch points move in both directions with the action of the hand throw lever. The selector lever must be left in “hand” position until switching is completed. The RTC must be advised when the selector lever has been restored to the “power” position and locked.

### 104.3 POWER-OPERATED SWITCHES AT A STOP SIGNAL

When the crew of a movement is authorized to pass a stop signal to move over a power-operated switch, a crew member must observe that the switch points are lined for the authorized route.

### 104.4 SEMI-AUTOMATIC SWITCHES

- **(a)** A semi-automatic switch will be equipped with reflectorized targets.

- **(b)** When ice or snow may affect the ability of the switch points on a semi-automatic switch to close properly when operated by wheel flange, a member of the crew must manually line the switch and ensure the points are properly lined before a trailing move is commenced over the switch. Movements operating in a facing point direction must observe the position of the points in addition to the target indication before proceeding over a semi-automatic switch.

- **(c)** After coupling to equipment at a semi-automatic switch, or when reversing direction through such switch, a facing point move must not be made, unless one unit of equipment has trailed entirely through the switch, or it is known that the points are properly lined for the movement.

### 104.5 DERAILS

- **(a)** The location of each derail will be marked by a sign, unless otherwise directed by special instructions. Employees must be familiar with the location of each derail.

- **(b)** A movement or track unit must stop short of a derail set in the derailing position.

- **(c)** Each derail, other than a Special Derail or a Blue Flag Derail, must be left in the derailing position.

The derail must be immediately restored to the derailing position and locked once the last piece of equipment or track unit has cleared the derail and work is complete on that track.
(d) The location of SPECIAL DERRAILS will be indicated in the timetable or special instructions, will be switch stand operated and identified in the field with a reflective red letter “D” on a reflective yellow target, or a sign indicating “Special Derail” which will be visible when in the derailing position.

The following requirements govern their use:

• they will only be in the derailing position when unattended equipment is present;
• equipment to be left must be coupled together except when required to clear a crossing or on account of a mechanical defect; and
• movements required to move at RESTRICTED speed on a track where a SPECIAL DERRAIL is located must, in addition to the requirements of RESTRICTED speed, approach such derail prepared to find it in the derailing position.

(e) All derails must be left secured with a locking device.

(f) Derails used in conjunction with blue flags will be in the derailing position only when protection for personnel is required. When protection is no longer required, they will be locked in a non-derailing position.

(g) Where hand operated switch point derails are in use, the points must be examined and the target observed to ensure that the derail is in the proper position.

The change in status of a hand operated derail may only be acted on when the employee responsible for handling the derail has communicated this information from the location of the derail. While switching at a location where a hand operated derail protects the main track or siding from uncontrolled moving of equipment from that track(s), the derail may only be left in the non-derailing position if equipment not coupled to is otherwise protected.

Otherwise protected can be accomplished by:

• The switching move continually blocks access from that equipment to the main track or siding
• Other derail(s) protect that equipment from uncontrolled moves
• A qualified employee is in position to take effective action
• Grade prohibits the possibility of an uncontrolled move toward main track or siding

105. OPERATION ON NON-MAIN TRACK

Special instructions will indicate when this rule is not applicable on a specific track.

Unless otherwise provided by signal indication, a movement using non-main track must operate at REDUCED speed and be prepared to stop short of the end of track or the red signal prescribed by Rule 41.

(a) In CTC, movements may only enter a siding by signal indication or with permission from the RTC.

(b) Unless otherwise provided by signal indication or special instructions, movements operating on non-main tracks must not exceed fifteen (15) MPH.

(c) In addition to moving at REDUCED speed, a movement using a non-signalled siding or using other non-main tracks so designated in special instructions, must operate at a speed that will allow it to stop within one-half the range of vision of a track unit. Not applicable where Siding Control Territory (SCT) rules are in effect.

105.1 EQUIPMENT LEFT ON SIDING

(a) Unless otherwise provided, the RTC must be advised prior to leaving equipment on a siding. The RTC will notify other movements affected as soon as practicable.
When occupied service equipment is placed on a siding, a GBO will be issued specifying the location of such equipment. If the switches of the siding are locked with special locks, the GBO will so state.

106. CREW RESPONSIBILITIES

All crew members are responsible for the safe operation of movements and equipment in their charge and for the observance of the rules. Under conditions not provided for by the rules, they must take every precaution for protection.

A utility employee becomes a crew member when working with any movement.

To ensure proper compliance, ALL crew members will ride in the controlling locomotive for cabooseless train or transfer operations.

**EXCEPTION:**

1) Where seating will not accommodate all crew members required to operate the train or transfer, a trailing unit may be used.

2) A Company Officer/Supervisor or a Transport Canada Inspector riding will be accommodated in the controlling engine.

3) When an engine service officer evaluating a locomotive engineer trainee or is required to operate the locomotive for other evaluation purposes, the locomotive engineer may be deployed to a trailing unit. Under these circumstances, the engine service officer will assume the normal responsibilities of the locomotive engineer.

107. RESTRICTIONS AT PASSENGER TRAIN STOPS

Unless otherwise directed by special instructions, a movement must operate with extreme care when passing along side a train carrying passengers that is discharging or receiving traffic.

It must not pass between such train and the station or platform, unless the movement is properly protected.

Passengers shall be allowed to entrain and detrain only after positive protection has been provided against movements approaching on any main track they must cross when moving between the station and the train.

**Positive protection will be as follows:**

A member of the crew of the passenger carrying train will be required to communicate with the RTC prior to arriving at the station and receive confirmation that protection has been provided against other movements. The RTC must be promptly advised when the protection is no longer required. Or the passenger carrying train will be instructed by the RTC of other train movements in the vicinity which they must make their own arrangements with as to the protection to be provided.

Such instructions from the RTC must include the locomotive number and train identification of the other movement(s) in the vicinity and the information must be repeated back to the RTC to ensure correctness.

110. INSPECTING PASSING TRAINS AND TRANSFERS

(a) When duties and terrain permit, at least two crew members of a standing train or transfer and other employees at wayside must position themselves on the ground on both sides of the track to inspect the condition of equipment in passing trains and transfers. When performing a train or transfer inspection, the locomotive engineer will inspect the near side. When a group of wayside employees is present, at least two employees must perform the inspection.

**EXCEPTION:** Crew members of passenger trains are exempted from the above requirements except when standing at meeting points in single track territory. However, every effort must be made to stop a train or transfer when a dangerous condition is noted.
Employees inspecting the condition of equipment in a passing freight train or transfer must, when possible, broadcast the results of the inspection.

Every effort must be made to stop a passing train or transfer if a dangerous condition is detected. Each crew member of a train or transfer must be alert at all times for a stop signal or communication given by an employee. The report to the train or transfer being inspected must state only the location of the dangerous condition and what was observed and not speculate as to the cause.

When a crew member is located at the rear of a train or transfer, a front crew member must, when practicable, notify the rear crew member of the location of employees in position to inspect their train or transfer.

111. TRAIN AND TRANSFER INSPECTION

The crew must know that equipment in their train or transfer is in good order before starting and inspect it whenever they have an opportunity to do so. Equipment added to a train or transfer en route must be inspected with extra care to ensure it is in good order.

When crew members are on the rear of a moving train or transfer they must inspect, at every opportunity, the track to the rear for evidence of dragging or derailed equipment.

All crew members on a moving train or transfer must make frequent inspections of both sides to ensure that it is in order.

On completion of crew-planned inspections and at locations where inspection is required by special instructions, crew members will, when possible, voice communicate to each other the results of such inspections.

112. SECURING UNATTENDED EQUIPMENT

When equipment is left unattended, it must be secured to prevent it from moving unintentionally and must be observed while pulling away to ensure the equipment remains in place.

In the application of this rule:

i. Equipment is considered unattended when an employee is not in close enough proximity to take effective action to stop the equipment should it move unintentionally.

   Effective action may be taken by an employee when there is unimpeded access to entrain the equipment and apply sufficient handbrakes, or on a locomotive, operate the brake handles or emergency brake.

ii. Parking brakes are considered to be handbrakes.

iii. Application of brakes must not be made while equipment is being pulled or shoved.

iv. Before leaving equipment, the employee securing such equipment must confirm with another employee the manner in which it has been secured.

   The confirmation must include the number of handbrakes applied and the confirmation that the air brakes, when applicable have been applied. This must be documented in the written transfer between crews, or on the Brake Status Report.

v. When one or more locomotives are coupled to one or more cars, handbrakes must be applied on all locomotives in the lead consist of the unattended movement. In the application of (g), the number of handbrakes applied on each locomotive in the lead consist must not be included in determining the number of handbrakes required on the cars.

vi. Testing Handbrake Effectiveness

When testing the effectiveness of handbrakes, ensure all air brakes are released and:

(a) allow the slack to adjust. It must be apparent when slack runs in or out, that the handbrakes are sufficient to prevent the equipment from moving.
effectiveness of handbrakes on a grade, the equipment must be moved towards the downgrade. After the movement has come to a stop, the slack must not adjust between the knuckles where separation is to be made. If slack adjusts then additional handbrakes must be applied and tested again; or

(b) apply sufficient tractive effort to determine that the handbrakes prevent the equipment from moving when tractive effort is terminated.

If the effectiveness of handbrakes is not sufficient to prevent the equipment from moving, apply one or more additional handbrakes and re-test.

Use of Air brakes

Before relying on airbrakes when used as securement as per this rule, the brakes must be conditioned to ensure there is no build up of ice or snow which may affect the retarding force.

(a) Main Track, Subdivision Track, Siding or High Risk Locations

i When equipment not connected to an air source is left unattended, or when left on a grade of 0.8% or greater, at least the minimum number of handbrakes as indicated in (g) must be applied, tested for effectiveness, and at least one of the following additional securement methods must be used:

• derail(s);
• track where rail physically ends;
• bowled terrain as identified in special instructions; or
• air brakes up to 2 hours.

When air brakes are used as an additional method of securement:

• the air brake system must be sufficiently charged to ensure proper brake application;
• the brake pipe must be fully vented at a service rate or has an emergency brake application; and
• on freight equipment, the angle cock is left fully open.

If required to be left longer, an employee must observe that the equipment has not moved, the air brake pistons remain extended, and the handbrakes are still applied. Such results must be communicated to another employee. This observation must be carried out at consecutive intervals of 2 hours or less. If any change in the condition of the above three items is observed, additional handbrakes must be applied as indicated in (g), using the next grade column which requires an increased number of handbrakes.

When attended, at least one handbrake must be applied and tested to ensure it provides retarding force.

ii When equipment connected to an air source is left unattended, where air pressure is maintained by continuous operation or auto start:

• at least the minimum number of handbrakes as indicated in (g) must be applied and tested for effectiveness;
• the air brake system must be sufficiently charged to ensure proper brake application;
• the equipment must be left with air brakes applied; and
• the independent brake on the controlling locomotive must be fully applied.

In addition, at least one of the following securement methods must be used:

• Derails;
• track where rail physically ends;
• a Mechanical Emergency Device (MED);
• bowed terrain as identified in special instructions; or
• a locomotive equipped with roll-away protection.

(b) Non-Main Tracks (Excluding Subdivision Track, Sidings, Yards and High Risk Locations)

When equipment is left, apply at least one handbrake, with one additional handbrake for every ten cars to a maximum of 5. On tracks with a grade greater than 0.4%, apply a minimum number of handbrakes as indicated in (g) and test for effectiveness.

(c) Yard Tracks

When switching is performed by allowing equipment to roll under its own momentum, precautions must be taken by crew members to prevent unintended rollbacks and/or fouling of other tracks and equipment.

When equipment is left unattended or uncoupled from an engine in a yard track, to prevent equipment from moving unintentionally, it must be secured by using at least one of the following:

• Handbrakes, apply at least one, with one additional handbrake for every ten cars to a maximum of 5, unless otherwise indicated in special instructions. On tracks with a grade greater than 0.4%, apply the minimum number of handbrakes as indicated in (g) and test for effectiveness;
• bowed terrain;
• retarders;
• wheel chocks or skates;
• air brakes, not connected to an air source, for up to 2 hours when:
  i there are 10 or more cars;
  ii the air brake system is sufficiently charged to ensure proper brake application;
  iii the brake pipe is fully vented at a service rate or has an emergency brake application; and
  iv on freight equipment, the angle cock is left fully open.

If required to be left longer, an employee must observe that the equipment has not moved, the air brake pistons remain extended, and the handbrakes (when used) are still applied.

Such results must be communicated to another employee. This observation must be carried out at consecutive intervals of 2 hours or less. If any change in the condition of the above items is observed, handbrakes must be applied as indicated in (g); or

• air brakes, connected to an air source, where air pressure is maintained by continuous operation or auto start, and:
  i using a Mechanical Emergency Device (MED); or
  ii connected to a locomotive equipped with roll-away protection.

(d) Exceptional weather situations, such as high winds or other unusual conditions, must be factored when determining securement requirements. In addition, previously secured equipment may require additional means of securement. Special instructions may contain location specific requirements where extreme weather events are prevalent.
(e) When advised that trespasser(s) or emergency responder(s) have been in contact with unattended equipment, the person responsible for the territory must make arrangements to have an employee verify the equipment remains secured without delay.

(f) When sudden or unforeseen circumstances do not permit the full application of the requirements of paragraphs (a) or (b), the proper authority must be promptly advised of what action was taken to secure the equipment, and to determine if additional action can be taken prior to leaving equipment unattended.

i These circumstances are limited to when:
- a mechanical defect is encountered enroute;
- equipment is derailed or coupled to derailed equipment; or
- separation is required for clearing a crossing for emergency vehicles.

ii Additional actions:
- When equipment with a mechanical defect is required to be left, and does not permit the full application of the requirements of paragraph (a) or (b), add one operative handbrake to the minimum number required, for each defective piece of equipment.
- When a mechanical defect requires equipment to be left, and does not permit the full application of the requirements of paragraph (a) or (b); or cannot be conducted safely, the equipment must be secured by applying handbrakes as indicated in (g), using the next grade column which requires an increased number of handbrakes. Additional handbrakes must be applied if those applied do not prevent the equipment from moving.

The railway company must notify Transport Canada of the time, date, and reason for any application of (f) within 48 hours.

(g) Minimum Number Requirements for Handbrakes
A single piece of equipment must always be left with the handbrake applied and tested for effectiveness. For two or more pieces of equipment, the following table applies:

<table>
<thead>
<tr>
<th>Total Trailing Tons</th>
<th>Average Grade Is Equal To or Less Than</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>0 – 2000</td>
<td>2</td>
</tr>
<tr>
<td>2001 – 4000</td>
<td>2</td>
</tr>
<tr>
<td>4001 – 6000</td>
<td>2</td>
</tr>
<tr>
<td>6001 – 8000</td>
<td>4</td>
</tr>
<tr>
<td>8001 – 10000</td>
<td>4</td>
</tr>
<tr>
<td>1001 – 12000</td>
<td>4</td>
</tr>
<tr>
<td>12001 – 14000</td>
<td>6</td>
</tr>
<tr>
<td>14001 – 16000</td>
<td>6</td>
</tr>
<tr>
<td>16001 – 18000</td>
<td>6</td>
</tr>
<tr>
<td>18001 – 20000</td>
<td>8</td>
</tr>
<tr>
<td>20001 – 22000</td>
<td>8</td>
</tr>
<tr>
<td>22001 – 24000</td>
<td>10</td>
</tr>
<tr>
<td>24001 – 26000</td>
<td>10</td>
</tr>
<tr>
<td>26001 – 28000</td>
<td>12</td>
</tr>
<tr>
<td>28001 – 30000</td>
<td>12</td>
</tr>
<tr>
<td>30001 – 32000</td>
<td>12</td>
</tr>
<tr>
<td>32001 – 34000</td>
<td>14</td>
</tr>
</tbody>
</table>

(100 % Hand Brakes)

113. COUPLING TO EQUIPMENT

(a) Before coupling to equipment, precautions must be taken to prevent the equipment from moving unintentionally.
When riding the side of equipment, other than a locomotive, detrain prior to making the coupling.

Before coupling to equipment, ensure at least one knuckle is open.

Unless otherwise specified in special instructions, before coupling to or moving equipment being loaded or unloaded, all persons in or about such equipment must be notified. Vehicles and loading or unloading devices must be clear.

Before coupling to or moving service equipment, employees occupying such equipment must be notified and any attachments secured.

When coupling to passenger equipment, a stop must be made not less than 6 nor greater than 12 feet from the coupling and a speed of 1 MPH must not be exceeded.

To prevent by-pass couplers when coupling to equipment on other than tangent track, or to prevent equipment left within 25 feet of the end of track from being shoved past the end of track, a stop must be made not less than 6 nor greater than 12 feet from the coupling. Extreme caution must then be used, ensuring couplers are properly aligned prior to the coupling being made or equipment is stopped prior to end of track.

Coupling must be performed at the lowest speed necessary to make the coupling, not exceeding 4 MPH.

Prior to leaving, a coupling made with equipment not released under its own momentum must be stretched using sufficient tractive effort to ensure a proper coupling.

113.1 UNCOUPLING FROM EQUIPMENT

(a) Equipment is considered to be uncoupled once the uncoupling lever has been lifted.

(b) In a yard, before uncoupling from standing equipment, a sufficient number of hand brakes must be applied, unless one of the methods in 112 (c) is used.

(c) Once uncoupled, unless released under its own momentum, the equipment must be observed to ensure it remains where intended.

113.2 MOVING EQUIPMENT AFTER COUPLING

(a) Equipment must be stretched.

(b) After stretching, and prior to moving, the equipment must be checked:

   i to ensure it is coupled; and

   ii for applied hand brakes as may normally be expected to be present.

(c) Unless unintentional movement of the equipment can be prevented with the locomotive brakes, hand brakes must not be released until the air brake system is sufficiently charged and an effective Automatic Brake application made to prevent movement while the hand brakes are being released.

113.3 SWITCHING WITH AIR BRAKES

(a) Operative air brakes, in addition to the locomotive(s), must be used when switching:

   i on a grade greater than 0.4%; and

   ii with more than 2000 tons.

(b) Special instructions must indicate:

   i locations where (a)(i) is applicable; and
the minimum number of pieces of equipment, in addition to the locomotive(s), with operative air brakes.

### 113.4 RESTRICTIONS
Kicking, running switch, and gravity drop are prohibited:

(a) on a main track;
(b) on a subdivision track;
(c) on a siding;
(d) at a high risk location;
(e) on any main shop, diesel shop, or car shop track; and
(f) onto, or with, passenger equipment.

Gravity drops are prohibited at CN.

### 113.5 KICKING EQUIPMENT

(a) On tracks not listed in Rule 113.4, unless otherwise indicated in special instructions, the kicking of equipment is prohibited. At locations where kicking is permitted:

i The walking surface of the area where equipment is uncoupled must be clear of obstacles.

ii The track(s) to be used beyond the area where equipment is uncoupled must be flat, and/or descend in grade, to prevent equipment from rolling back and fouling a track previously cleared.

iii Equipment must be prevented from exiting the intended track at either end.

iv Routing must prevent equipment kicked from fouling a main track, siding, subdivision track, or a high risk location. This may include the use of switches, derails, switching leads, or other controlled means.

v Special instructions will indicate the maximum tonnage that may be kicked at one time, as determined by a Company approved process.

(b) When hand brakes will be used to control the speed of equipment kicked, such hand brakes must first be verified operational. The use of hand brakes to control the speed is prohibited at CN.

(c) Equipment kicked must not be left foul of the intended route.

(d) Once equipment is kicked, no additional equipment may be kicked until it has been confirmed that:

i the route to be used is properly lined, and

ii equipment previously kicked is clear of the fouling point of the intended route.

(e) Precautions must be taken to ensure that equipment kicked remains clear.

(f) When kicking is completed, equipment must be secured per Rule 112(b) or (c).

### 113.6 RUNNING SWITCH

(a) It must be verified that the switch and hand brakes are in working order before the move is commenced. Applying a hand brake during a running switch is prohibited at CN.

(b) A running switch must not be made;
i. with or onto occupied equipment;
ii. with or onto equipment placarded to indicate it contains or contained dangerous goods;
iii. where the switch to be used is a dual control, power-operated or spring switch; or
iv. within interlocking limits of a drawbridge or railway crossing at grade.

(c) At least 3 employees must be utilized when performing a running switch.

113.7 GRAVITY DROP

Gravity drops are prohibited at CN

114. FOULING OTHER TRACKS

(a) Employees must not allow equipment or track units to occupy the foul zone unless properly protected and the switches are lined, or for semi-automatic and spring switches will be trailed through and lined by the equipment, for the connecting track.

(b) Before lining a switch or trailing through a semi-automatic or spring switch, ensure:
   • no equipment or track units are approaching the foul zone, and
   • no equipment or track units are within the foul zone; where there is no clearance point indication, equipment or track unit is visibly clear.

(c) Equipment or track units must not be left in the foul zone, if possible. When not possible and it is required to leave in the foul zone:
   • Switch must be left lined for track where equipment or track unit is left, and
   • Leave equipment or track unit on switch points (when possible).
If the clearance point is not marked, the employee must determine the clearance point by:

1) Take a position on the adjacent track, at the end of the tie, of the nearest rail with feet parallel to the track.
2) With feet at shoulder width apart, raise arm to shoulder height.
3) Once the equipment is clear of fingertips, move equipment 50 feet further into the track.

115. SHOVELING EQUIPMENT

(a) When equipment is shoveled by an engine or is headed by an unmanned remotely controlled engine, a crew member must be on the leading piece of equipment or on the ground, in a position to observe the track to be used and to give signals or instructions necessary to control the move.

EXCEPTION: A crew member need not be so positioned when the portion of the track to be used is known to be clear. However, equipment not headed by an engine must not approach to within 100 feet of any public, private or farm crossing unless such crossings are protected as described in Rule 103 paragraph (b) or (g).

(b) Known to be clear is defined as seeing the portion of the track to be used as being clear and remaining clear of equipment, track units, blue or red signals, derails, switches and as having sufficient room to contain equipment being shovelled. This determination must be made by a qualified employee who can observe the track and has radio contact with the employee controlling the movement.

Known to be clear can also be established by having a positive form of protection for the track to be used, such as:

i Point Protection Zone (PPZ) / Protection Zone (PZ), or

ii RTC Protection (Main Track authority or Siding Control Territory)

(c) On main track, when equipment is shoveled by an engine or is headed by an unmanned remotely controlled engine, unless protected by a crew member as described in paragraph (a), this move must:
i have the required authority;
ii not exceed the overall length of the equipment; and
iii not exceed 15 MPH;

(d) Unless the route is known to be clear, when reversing with a locomotive consist and visibility is restricted, a member of the crew must be on the leading end and in position from which signals necessary can be properly given.
RADIO (Rule 117 to 127)

117. RELIABILITY TESTS
The crew of a movement when equipped with radios must carry out an intra-crew test of such radios before leaving their initial terminal, change-off or starting point. When a movement is equipped with a single radio, it must be voice tested as soon as practicable after the crew commences duty.

118. DEVICES USED IN LIEU OF RADIO
When a communication device is used in lieu of a radio, all radio rules are applicable.

119. CONTINUOUS MONITORING
(a) When not being used to transmit or receive a communication, receivers must be set to the appropriate standby channel and at a volume which will ensure continuous monitoring. When required to use another channel to perform other duties, at least one radio, when practicable, should be set to the designated standby channel to receive emergency communications.
(b) The volume of a radio receiver should be kept at a level that will avoid annoyance to the public in passenger cars and station facilities.
(c) Foremen named in Form Y GBO, TOP or clearance must set their radio to “scan mode” when not being used to communicate with another employee and must otherwise have their radio set to monitor the applicable designated standby channel.

120. RADIO TERMS
(a) In radio communication the following terms when used will denote:

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>“STAND BY”</td>
<td>Monitor this channel for my next transmission.</td>
</tr>
<tr>
<td>“OVER”</td>
<td>Transmission is ended and a response is expected.</td>
</tr>
<tr>
<td>“OUT”</td>
<td>Transmission is ended and no response is expected.</td>
</tr>
</tbody>
</table>
(b) Except when radio communication relates to switching operations, when a transmission is complete and a response is expected or required, the transmitting employee must end each transmission with the spoken word “OVER.”

121. POSITIVE IDENTIFICATION
(a) The person initiating a radio communication and the responding party must establish positive identification. The initial call must commence with the railway company initials of the person being called.

In addition, when a non-railway company person is calling on a company’s channels, they must use their company’s name to identify themselves within the initial transmission.

When using the engine number to establish positive identification, both initial and number of the engine must be used.
(b) The person initiating the radio communication must end the initial call with the spoken word “OVER.”
(c) Each party to a radio communication must end their final transmission with the spoken word “OUT.”
(d) When an authority is requested from the RTC or signalman, communication must include the information required for the issuance of the authority.
E.g. name, location, movement designation, required limits, signal number and/or track(s) to be used or entered.

122. CONTENT OF RADIO COMMUNICATIONS
Radio communications must be brief and to the point and contain only essential instructions or information.

123. VERIFICATION PROCEDURES
(a) When necessary, a repetition, acknowledgement or other response required from a crew member may be checked and confirmed to the RTC by another crew member.
(b) When GBO, clearances, other authorities or instructions, required to be in writing, are received by radio, they must be verified by the procedures prescribed by their specific rules.
(c) Except when transmitted by an automated device, or as otherwise provided, when verbal instructions or information affecting the safety of a movement are received by radio, such information must be repeated to the sender.

123.1 RADIO OR HAND SIGNALS
Before changing between radio or hand signals, a definite understanding as to the method of communication must be established between crew members giving or receiving instructions. In case of an emergency, either method may be used in addition to that previously arranged.

123.2 SWITCHING BY RADIO
When radio is used to control switching, and after positive identification has been established, the following procedures are required:

i direction in relation to the front of the controlling locomotive must be given in the initial instruction and from then on whenever the direction is to change;

ii distance to travel must be given with each communication and increments of less than two car lengths need not be repeated;

iii when the movement has travelled one-half the distance required by the last instruction and no further communication is received, the movement must stop;

iv the indication of block and interlocking signals affecting their movement, must be communicated between crew members while switching;

v doubt as to the meaning of an instruction or for whom it is intended must be regarded as a stop signal; and

vi when car lengths are used to communicate distance, unless otherwise arranged, the distance referred to is 50 feet per car length.

125. EMERGENCY COMMUNICATION PROCEDURES
(a) An employee will transmit the word “EMERGENCY” three times at the beginning of the transmission to indicate the report of:

i an accident involving injury to employees or others;

ii a condition which may constitute a hazard to employees or others;

iii a condition which may endanger the passage of movements; or

iv a derailment which has occurred on, or is fouling, a main track.
(b) When an emergency communication, which is directed to a specific person or movement, has not been acknowledged, any other employee hearing it will, if practicable, relay the communication by any means available. Other employees must not interfere with such communication.

(c) An emergency communication has absolute priority over other transmissions.

126. RESTRICTED USE OF RADIO
In addition to the restrictions in Rules 14 and 602, radio must not be used to:

i give advance information with respect to the indication of a block or interlocking signal; or

ii give information which may influence a crew to consider that speed restrictions are diminished.

127. CONDUCTING EMERGENCY RADIO TEST
(a) In order to ensure emergency communication channels are in operation, and to ensure employees are familiar with the emergency procedures, the RTC may contact a crew member of any movement or an engineering field employee and direct them to initiate an emergency test call on their respective RTC channel.

(b) These tests will be made randomly and employees receiving a request for an emergency test will initiate it on the applicable RTC channel, using the following example for wording:

“Emergency test, Emergency test, Emergency test. ABC 1234 East at mile 12 Canada Sub, testing the Emergency call.”

(c) Upon completion of the test, the RTC will inform the employee if the test was successful. Employees will then return to their designated standby channel.
GENERAL PROCEDURES (Rule 131 to 148)

131. RECORDING

(a) The RTC must maintain indelibly in a book provided for the purpose, or a computer assisted system, a complete record of each GBO, clearance, TOP, authority, instruction and other information that is required to be in writing. The record must be made prior to or during the transmission and never from memory or memoranda, and if required to be sent again, it will be transmitted from the original record. Such records must include original date of issue, complete time(s) and acknowledgement(s), when applicable.

(b) When issuing by voice communication, if an error is detected in the record of a GBO, clearance, TOP, or other authority, and before it has been completed to any employee, the RTC must direct that all copies be immediately destroyed. The record must be marked void. If re-issued, those which require numbering must be given a new number.

(c) In copying and recording, the spelling of each station name must be exactly as shown in the time table. The RTC, when recording addresses, may use standard station identity letters. Underscoring will be recorded except when verified by a computer assisted system.

(d) Where a computer assisted system is not in use, all movements authorized by a clearance and all TOP limits must be recorded on a train sheet.

131.1 ELECTRONIC TRANSMISSION AND CANCELLATION

When a GBO, clearance, TOP, other authority, instruction or information is transmitted or cancelled using an ECM and not by voice communication, it will not be repeated to the RTC. When transmitted in this manner, the “complete time” and the initials of the RTC will be generated by the ECM. When cancelled, the initials of the RTC are not required.

132. BREVITY, CLARITY, PRONUNCIATION AND RETENTION

(a) A GBO, clearance, TOP, authority, instruction and its record shall contain only essential information. It must be brief, but clear in its meaning, in the prescribed form when applicable, and without erasure or any condition which may render it difficult to read or understand.

(b) In transmitting and repeating by voice communication, all words and numbers must be clearly pronounced. When the communication is required to be in writing, numbers will be pronounced in full, then repeated stating each digit separately. Numbers represented by a single digit must be pronounced, then spelled.

(c) The employee transmitting or repeating communications required to be in writing must regulate the speed of transmission to allow compliance with this rule.

(d) When an accident or incident occurs, all authorities, GBO or written instructions must be retained until relieved of this requirement by a supervisor.

(e) When a clearance, TOP, other written instruction or authority is fulfilled, cancelled or superseded or an item of a TOP or Track Warrant or OCS Clearance is cancelled;
   i where applicable, other employees must be advised; and
   ii except when displayed electronically:
      • an “X” must be immediately drawn across it to avoid further use; or
      • when contained within a book, must be marked with a single diagonal line drawn across the page to indicate that it is no longer active and a second diagonal line forming an “X” will be drawn across the page when there are no preceding active items.
133. NUMBERING
Except where numbering is controlled by computer, each RTC desk in a multiple desk office and desks controlling adjacent territories will use a separate series from other desks for numbering a GBO, clearance, TOP, authority, instruction or other information which requires numbering. Unless otherwise provided each series must be numbered consecutively using whole numbers. All numbers in a series may be preceded or followed by a letter(s). Duplicate numbers must not be in effect at the same time.

134. DESIGNATION OF MOVEMENTS
(a) GBO, clearance or other authority, will be addressed to those who are to execute and observe them. Addresses will be clear and concise and leave no doubt as to whom they are addressed.
(b) In the body of a GBO or other authority where positive identification is required, the engine number must be included in the designation.
(c) When the locomotive number is used in the designation, it must, when practicable be the leading locomotive. The number lights of the designated locomotive only will be illuminated at all times.

135. EMPLOYEES ADDRESSED
A GBO, clearance or other authority addressed to a movement must be regarded as being addressed to the conductor and locomotive engineer and also to the pilot or snow plow foreman, if any. A crew member copying a GBO or clearance must ensure that those addressed receive a copy.

136. COPYING, REPEATING, COMPLETING AND CANCELLING
(a) The employee copying a GBO, clearance, TOP or other authority from the RTC or the cancellation of same, must copy as it is transmitted and repeat from the copy received all applicable written and pre-printed portions. The spelling of each station name must be exactly as shown in the time table.
(b) GBO, authorities or instructions must not be copied by the employee operating moving equipment or track units, if it will interfere with the safe operation of such equipment or track unit.
(c) The RTC must verify each written word and digit each time it is repeated. If correct, the RTC will respond “complete”, the time and the initials of the RTC, which will be recorded and acknowledged by the employee copying. The employee copying must acknowledge by repeating “complete” the time, and the initials of the RTC to the RTC.
(d) When transmitted by voice communication direct to the crew of a movement, it must not be completed until each crew member copying has correctly repeated it.

137. FOREMAN’S INSTRUCTIONS
Instructions from a foreman must be in writing except when the instructions permit unrestricted operation through the entire limits.

139. BECOMING EFFECTIVE
A GBO, clearance, TOP or other authority becomes effective at the moment the “complete” time and initials of the RTC are given by the RTC. However, the RTC must not take further action if there is a restriction contained therein until acknowledged by the employee copying.
140. CHANGES AFTER BECOMING EFFECTIVE
Changes must not be made to a GBO, clearance, TOP or other authority after becoming effective, except when:

i. An address is added to a GBO, the number and the applicable portion of the GBO address must be repeated to and verified by the RTC;

ii. A time or location to call the RTC is indicated on a clearance, TOP or other authority, such time or location may be changed as required. When so changed, the employee copying must draw a line through the previous time or location;

iii. A computer assisted system is used to issue GBO, the effective time and/or date may be removed from the GBO in the system after the effective time, and in the application of Rule 43 instructions in the GBO stating “signals may not be in place” may be removed after the foreman confirms that signals have been placed.

141. MAKING ADDITIONAL COPIES
(a) When additional copies of a GBO, clearance, TOP or other authority are required, they may be received from the RTC or made from one previously completed. Such copies must be repeated to the RTC from the new copy except when received from an ECM or reproduced by a duplicating device.

(b) An employee producing or reproducing a copy for delivery to another employee must check each copy to ensure legibility.

142. UNDERSTANDING BETWEEN CREW MEMBERS
(a) Every conductor, locomotive engineer, pilot and snow plow foreman must read and have a proper understanding of all GBO and Clearances, and read or have a proper understanding of Track Warrants and written instructions as soon as possible after they have been received. Each must be made available to other crew members, as soon as practicable, ensuring that each crew member has read and understands them and, when required, the arrangements for protection between crews and between foremen and crews.

(b) Crew members within physical hearing range are required to remind one another of the restrictions contained in GBO and clearances in sufficient time to ensure compliance. All crew members of a train or transfer, other than the employee(s) who copied an OCS Clearance, must confirm their verification of the copy that they have read by initialling the following:

   i. Item 14, 15 and 16 - Protect against restrictions if issued
   ii. Item 19.1 to 19.6 – switch warnings if issued
   iii. The bottom of the OCS clearance without exception

147. TRANSFER BETWEEN CREWS
(a) When a conductor, locomotive engineer or both are changed off, or relieved, all GBO, DOB, clearances, authorities, TGBO and other written instructions and all necessary information still in effect must be transferred personally to the relieving crew. The transfer of information must be known to be understood by the relieving employee(s).

(b) When it is not practicable to carry out a personal transfer, crews relieved of duty on line must contact the RTC as to the disposition of all documentation and authorities held for their movement. If documentation is to be left at any point for the relieving crew, a list of the items transferred must be prepared and signed by the crew member(s) going off duty. The relieving crew must compare all pertinent information with the RTC before proceeding.
(c) The relieving crew of a movement that has been tied up on line must contact the RTC to ensure that there are no restrictions against moving any portion of their movement. In addition when taking control of a movement occupying a CTC controlled track, if unable to ascertain the last signal indication for their movement, RESTRICTED speed applies to the next signal.

(d) Verbal instructions received from a foreman must not be transferred between crews. The relieving crew must contact the foreman and obtain the necessary authority and/or instructions.

148. PERSONAL TRANSFER BETWEEN RTC

(a) Where an ECM is used or where a computer assisted system generates a list as defined in paragraph (b), the relieving RTC must sign into the system in the presence of the on-duty RTC, and receive verbal and/or written transfer of other necessary instructions and information.

(b) Except as prescribed in paragraph (a), before being relieved, an RTC must make an indelible list in a book provided for the purpose, of GBO, TOP, clearances, and other authorities in effect:

i Each such record must have been read, understood and initialled by the relieving RTC.

ii Other necessary instructions and information must also be transferred.

iii Both RTC must sign the transfer and the relieving RTC will record the time the transfer is completed.
GENERAL BULLETIN ORDER (GBO) (Rule 151 to 157)

151. IDENTICAL MEANING TO ALL
The body of each GBO must be given in the same words and figures to each employee and movement addressed.

152. DELIVERY OF GBO
The RTC must ensure that movements affected by a GBO are issued a copy of the GBO, or are otherwise secured.

153. CONFIRMATION TO A FOREMAN
Confirmation of protection must not be given to a foreman until all movements affected have received a copy of the GBO or are otherwise secured.

154. REMAIN IN EFFECT
GBO remain in effect for the entire tour of duty unless cancelled. GBO must be retained at away from home locations to be available, if required, for the return trip.

155. CANCELLING GBO
(a) To cancel an item of a GBO, the RTC will use the following: Item ______ of GBO __________ is cancelled __________ (RTC)______.
(b) To cancel a GBO, the RTC will use the following: GBO ______ is cancelled __________________________ (RTC)______.
(c) The cancellation must be repeated to, and acknowledged by, the RTC with complete time and RTC initials.

156. DAILY OPERATING BULLETIN (DOB)
(a) Except as provided for in paragraph (b), a movement must not move on any track where DOB is applicable unless it is in possession of:
   i the current DOB; or
   ii a TGBO which is applicable within the portion of the limits of the DOB over which the movement will operate.
(b) The DOB will take effect at the time specified and will remain in effect until the same time the following day. A crew of a movement within DOB limits unable to clear the limits before the DOB expires, or unable to obtain a copy of the next current DOB, must contact the RTC. In such circumstances, the DOB may be extended by the RTC with any necessary changes. If unable to communicate with the RTC, the movement must be stopped.
(c) All crew members must verify that the DOB is properly dated, and it contains the correct number of pages, and the number of items compare with that number shown on the last page of the DOB.
   To indicate the comparison has been undertaken, each crew member will sign the last page and initial all other pages of the copy of the DOB they are using.
(d) The RTC will ensure that the information or instructions contained in each GBO, pertaining to track or other conditions within such limits, is correct and placed in the appropriate DOB.
157. TABULAR GENERAL BULLETIN ORDER (TGBO)

(a) A movement must not move on any track where TGBO is applicable, unless it is in possession of a TGBO addressed to them.

Overlapping TGBO and DOB Limits. Movements required to operate outside of DOB limits must operate their entire trip with a TGBO addressed to them unless authorized by the RTC or by special instructions.

(b) All crew members must ensure that their movement is properly designated on their TGBO, it contains the correct number of pages, the number of GBOs compare with that shown on the last page of the TGBO and that the “applicable on” portion limits cover the specific routing for the entire trip. If an incorrectly designated TGBO is received or there is no TGBO for that movement the RTC must be contacted immediately.

To indicate this check has been undertaken, each crew member will, on the copy of their TGBO they have checked, will initial each page except the last page, initial the “Applicable on” portion, initial the train or transfer designation and sign the last page.

(c) When designated using the movement identification number, the train journal, list or other acceptable document may be used for verification. If the designation on the TGBO is incorrect, a change of designation must be issued by the RTC. If the designation of the train journal, list or other acceptable document is incorrect while the TGBO designation is correct, the designation on the train journal, list or other acceptable document may be changed when authorized by the RTC, a company officer or other employee who has access to the correct information. When a train journal, list or other acceptable document is not available, a member of the crew may obtain the correct designation of the movement for comparison to the TGBO from the RTC, Company Supervisor or other employee who has access to this information.

(d) A crew of a movement within TGBO limits with a TGBO that includes an item that cancels the TGBO at a specific time, must communicate with and be governed by instructions of the RTC before the expiry time. If unable to communicate with the RTC and unable to clear TGBO limits, the movement must be stopped.
FORMS OF GBO

The following examples of GBO will be used where applicable. Times, mileages and speeds shown in MPH will be in numbers only.

FORM S - MAIN TRACK OUT OF SERVICE

1) Main track out of service between siding switches at Whitney. Switches lined and secured for siding. Movements will operate through siding in accordance with Rule 105.

2) Main track out of service between main track switches at mile 11.3 and mile 12.1 Canada Sub, Baker Industrial Track. Switches lined and secured for this track. Movements will operate through Baker Industrial Track in accordance with Rule 105.

When a foreman has received confirmation in writing that the GBO is in effect, impassable main track, between the switches of the siding or other tracks, may be protected in the manner prescribed by Rule 841. Before Form S is issued, any derail on such track must be secured in the non-derailing position or removed from the rail.

FORM T - EQUIPMENT LEFT ON MAIN TRACK

1) Unattended equipment occupying main (No 4) track between mile 9 and mile 11 Maple Leaf Sub.
   Example (1) will be used to provide permission to leave and provide protection for equipment occupying the main track between the designated points. Equipment must be left between the designated points.

2) Derailed equipment obstructing main (east) track (No 1 track and No 2 track) between mile 28 and mile 29 Beaver Sub.
   Example (2) will be used to protect derailed equipment on the main track or obstructing a main track.

The crew of a movement receiving examples (1) or (2) must proceed prepared to stop short of such equipment.

FORM V - SPECIFYING SPEED

1) Do not exceed 10 MPH between mile 15 and mile 20 (at mile 19.4) (on east track) Canada Sub.
   This example will be used with Rule 43 protection, or for other conditions requiring a reduction in movement speed not covered by example (2) or (3). When required, the GBO must specify the track, or tracks, upon which the restriction applies.

2) Do not exceed 30 MPH while handling ____________.
   This example may be used when it is necessary to restrict the speed of specific equipment.

3) Do not exceed 20 MPH entering public crossing at grade mile 43.5 Beaver Sub until crossing fully occupied.
   This example must be used to restrict the speed of movements entering a public crossing at grade.

FORM Y - PLANNED PROTECTION

Form Y will be used to provide protection as prescribed by Rule 42.

Be governed by Rule 42 on Nov 30th from 0800 until 1700 between mile 10 and mile 12(on east track) Canada Sub Foreman __________.

NOTE: This form may be modified for daily or other exceptional usage. E.g. daily from 0800 until 1700. When required, the GBO must specify the track, or tracks, upon which the restriction applies.
OCCUPANCY CONTROL SYSTEM (OCS) RULES (Rule 301 to 315)

301. APPLICATION AND SUPERVISION
(a) On subdivisions, portions of subdivisions or other tracks specified in special instructions, movements will be governed by Occupancy Control System (OCS) Rules.
(b) The RTC will supervise OCS territory by means of clearances, TOP, GBO and other instructions as may be required.

302. CLEARANCE REQUIRED
(a) A train or transfer must be authorized by a clearance to foul or enter a track where OCS rules are applicable.
(b) A clearance will be sent direct to the crew of the train or transfer addressed. Before the clearance is acted upon the conductor and locomotive engineer must, as soon as possible, ensure that each is in possession of the clearance and their train or transfer is correctly designated. Engine number must be verified visually to ensure correctness.

302.1 CLEARANCE IN EFFECT
A clearance remains in effect until fulfilled, superseded or cancelled.
Clearances that authorize a train or transfer to proceed, unless cancelled, must be fulfilled in the order in which they are issued on that subdivision.

302.2 SUPERSEeding A CLEARANCE
(a) A clearance may be issued superseding a clearance already in possession of the crew of the train or transfer addressed.
(b) When superseding a clearance that includes limits the train or transfer is occupying, the superseding clearance must include that section of track and must not include a requirement to wait until the arrival of an opposing train or transfer.
(c) If a superseding clearance restricts the authority already in possession of the train or transfer addressed, the RTC must not take further action until the complete time has been acknowledged by the conductor and locomotive engine

302.3 CANCELLING CLEARANCE
(a) Before a clearance is cancelled, the train or transfer addressed must be;
   i clear of the limits; or
   ii protected by Form T GBO.
(b) When a clearance is cancelled, the cancellation does not take effect until it has been acknowledged by the conductor and locomotive engineer. These employees must acknowledge by repeating the clearance number, cancelled time and initials of the RTC to the RTC.

303.1 RADIO PROTECTION AGAINST FOLLOWING TRAINS AND TRANSFERS
(Not applicable to trains or transfers in possession of a work clearance)
The RTC must not authorize a train or transfer to follow a preceding train or transfer until the crew of the following train or transfer has been restricted by its clearance as follows: “Protect against (preceding train or transfer) from (location) to (location)”.

Except as provided in paragraph (d), a train or transfer so restricted must not leave the location named nor leave any identifiable location until the preceding train or transfer has reported that it has left an identifiable location ahead. This report must be recorded in writing by a crew member of the following train or transfer. Such information may be received from the RTC. Identifiable locations as listed in Rule 82 must be used. Under circumstances in which a report is not received from the preceding train or transfer, the following train or transfer may operate at REDUCED speed to a maximum speed of 25 MPH, and must never pass a switch where the preceding train may have cleared the main track unless verified the preceding movement has not cleared into that track. The RTC must be advised if a movement will be operating at REDUCED speed as per this rule.

A train or transfer so restricted must not pass the preceding train or transfer.

When the preceding train or transfer has stopped, arrangements may be made with the following train or transfer to “close up”. These arrangements must be made in writing between the crews of both trains or transfers. When the preceding train or transfer resumes moving, the following train or transfer will be governed by paragraph (b). When the preceding train or transfer has left the location to which the following train or transfer is authorized, Rule 303.1 no longer applies.

304. RESTRICTION BEFORE LEAVING

When a train or transfer has been restricted by clearance, such train or transfer must not leave the point named until it is positively known that the opposing train(s) or transfer(s) named on the clearance have arrived.

A train or transfer has not arrived until its designated engine and marker have arrived.

Trains or transfers operating without a marker have not arrived until confirmed by direct communication with a member of the crew of such train or transfer.

If unable to observe the arrival of a train or transfer, or unable to communicate with a member of the crew, the RTC must be contacted.

304.1 STOPPING CLEAR OF FOULING POINT

A train or transfer or track unit required to stop at a meeting, clearing or waiting point, or at the end of authority, must be stopped clear of the route to be used by another train or transfer or track unit.

305. BEFORE ISSUING CLEARANCE AUTHORITY

Before issuing clearance authority, the RTC must provide protection against all conflicting trains, transfers and TOP within the limits stated.

306. TRACK USE

In multi-track OCS, a clearance must specify the track(s) to be used.

308. WORK CLEARANCE AUTHORITY

(a) When authorized to work by clearance a train or transfer may move in either direction within the limits named in the clearance.

(b) A work clearance remains in effect until superseded or cancelled.
308.1 CHANGING DIRECTION – PROCEED CLEARANCE

Unless otherwise provided by rules or special instructions, when authorized to proceed by clearance, a train or transfer must move only in the specified direction.

Provided the track to be operated over has not been released, a train or transfer authorized by clearance to proceed may reverse a distance of 300 feet or less.

311. PROTECTING AGAINST A FOREMAN

(a) A train or transfer must not be authorized to enter or move within the limits of a TOP until it has been restricted as follows:

“Protect against foreman (name) between (location) and (location).”

(b) The train or transfer must not enter, nor move within, the TOP limits until instructions have been obtained from the foreman named on the clearance. These instructions must be repeated to, and acknowledged by, the foreman before being acted upon.

When permission is granted from the foreman, the current time and location / mileage of the movement must be recorded next to restriction on the clearance. All crew members, other than the employee that recorded it, must acknowledge and initial the time and location. This clearance must be retained until the completion of the shift.

314. PROCEEDING THROUGH OR WORKING WITHIN WORK TRAIN OR TRANSFER LIMITS

(a) A train or transfer may be authorized to proceed through or work within the limits of one or more trains or transfers authorized to work, provided such train or transfer is restricted by its clearance as follows; “Protect against (working train/transfer) working between (location) and (location)”

(b) A train or transfer must not enter nor move within the working limits until a thorough understanding is established with the conductor and locomotive engineer of each train or transfer authorized to work. Such understanding must be in writing and include information with respect to the intended operation of each train or transfer and the protection to be provided.

Such protection must be provided until the train(s) or transfer(s) has left the working limits.

315. RADIO BROADCAST REQUIREMENTS

(a) A crew member of a movement must initiate a radio broadcast to the airwaves on the designated standby channel:

• when entering OCS at a location other than from a siding
• at each mile post where the whole mile ends in (5)

This broadcast must state any restriction(s) from that location to the next location where a broadcast is required. If more than 2 restrictions fall between these locations, state “Multiple Restrictions”, or if there are no restrictions, broadcast “No Restrictions”.

This broadcast must be made as soon as possible after receiving a WIS talker broadcast should the two conflict.

Broadcast need only be made once for movements entering and clearing OCS while switching.

Restrictions requiring a broadcast are:

• Protect against another movement or foreman
• Rule42
• Rule 43 (exception: Broadcast NOT required when authorized speed of the movement is equal to or less than speed restriction approaching.)
• Requirement by GBO, message or verbally to manually protect a crossing
• Switch Warning
• End of Authority Limits

(b) A member of the crew located on other than the engine must confirm that the radio broadcast has been made in accordance with (a) Special Instructions. If unable to contact the engine crew to ascertain this information, immediate action must be taken to stop the movement before it will reach the next point of restriction.
SIDING CONTROL TERRITORY (SCT) RULES (Rule 360 to 364)

360. APPLICATION
Where specified by special instructions, the use of non-signalled sidings within CTC will be governed by the Siding Control Territory rules.

361. SUPERVISION
Movements, protection of track work and operation of track units will, unless otherwise provided, be supervised by the RTC who will issue instructions as may be required.

362. CLEAR OF EQUIPMENT
(a) Sidings will be considered as clear of equipment unless otherwise informed by the RTC.
(b) Before permitting a movement to enter a siding occupied by other equipment, the RTC must advise a member of the crew that other equipment occupies such siding.

363. HAND OPERATED SWITCHES
Hand operated switches in sidings may be considered lined for the normal position unless advised otherwise by the RTC, GBO or special instruction.

364. PROTECTION OF TRACK WORK AND OPERATION OF TRACK UNITS
A foreman must be in possession of a TOP for the protection of track work and operation of track units. Rule 41/841 is not applicable.
GENERAL DESCRIPTION AND LOCATION OF FIXED SIGNALS (Rule 401 to 404)

401. LOCATION
Wherever practicable, fixed signals other than switches will be located above, or to the right of, the track they govern. Where circumstances require that signals be otherwise placed, such conditions will be indicated by GBO or special instructions.

EXCEPTION: A block or interlocking signal that is required to be placed to the left of the track it governs need not be indicated by GBO or special instructions, provided that such location does not place the signal to the right of another signalled track.

401.1 SIGNAL DISPLAYED
The indications displayed on block and interlocking signals govern operation to the next signal or block end sign. Except as otherwise specified in special instructions, a signal to leave the main track to enter non-main track applies to the block end sign or until the leading end of the movement has passed entirely through the controlled location and entered non-main track. Speed requirements protecting turnouts must be complied with until the entire movement has cleared the turnout.

401.2 NO ADVANCE SIGNAL
At locations where there is no advance signal to the signal governing movements into CTC or movements are re-entering CTC from a siding, all movements must approach the governing signal preparing to stop until it can be observed as displaying a more favourable indication than Stop.

402. POSITIONING
Where conditions allow, block and interlocking signal heads will be positioned with respect to the tracks on which they affect movements. Bridges, cantilevers, dummy masts and other structures will be used and must be illustrated in company instructions to ensure proper understanding or signal intent.

Where conditions require, block and interlocking signal heads will be positioned with respect to the tracks occupied by track units or movements as illustrated in Figures 1, 2 and 3. One or more dummy masts, as in Figure 3, indicates that there are one or more tracks between the active signal and the track on which it affects track units and/or movements.
403. APPEARANCE OF COLOUR LIGHT SIGNALS

(a) Block and interlocking signal aspects will be displayed by the colour, position, flashing of lights, or combinations thereof.

(b) The indications of any such signal may be qualified or modified by an attached arrow and/or plate(s).
   The attached plate(s) may have permanent lettering, and/or illuminated (flashing or solid) lettering. Where illuminated lettering plates are used, modification to the indication of the signal applies only when lit.

(c) Lights may be attached to either side of the signal mast and number plates may be provided for the purpose of identifying the location.

404. STANDARD INDICATIONS

The illustrations in Rules 405-440 are standard aspects and indications. Other signal aspects and indications necessary will be illustrated in special instructions.
BLOCK AND INTERLOCKING SIGNALS (Rule 405 to 440)

FLASHING LIGHT

405. CLEAR
Clear - Proceed.

406. CLEAR TO LIMITED
Clear to Limited - Proceed, approaching next signal at LIMITED speed.

407. CLEAR TO MEDIUM
Clear to Medium - Proceed, approaching next signal at MEDIUM speed.
408. CLEAR TO DIVERGING
Clear to Diverging - Proceed, approaching next signal at DIVERGING speed.

409. CLEAR TO SLOW
Clear to Slow - Proceed, approaching next signal at SLOW speed.

411. CLEAR TO STOP
Clear to Stop - Proceed, preparing to stop at next signal.

412. ADVANCE CLEAR TO LIMITED
Advance Clear to Limited - Proceed, approaching second signal at LIMITED speed.
413. ADVANCE CLEAR TO MEDIUM
Advance Clear to Medium - Proceed, approaching second signal at MEDIUM speed.

414. ADVANCE CLEAR TO SLOW
Advance Clear to Slow - Proceed, approaching second signal at SLOW speed.

414A. ADVANCE CLEAR TO DIVERGING
Advance Clear to Diverging - Proceed, approaching second signal at DIVERGING speed.

415. ADVANCE CLEAR TO STOP
Advance Clear to Stop - Proceed, prepared to Stop at second signal.
416. LIMITED TO CLEAR
Limited to Clear - Proceed, LIMITED speed passing signal and through turnouts.

417. LIMITED TO LIMITED
Limited to Limited - Proceed, LIMITED speed passing signal and through turnouts, approaching next signal at LIMITED speed.

418. LIMITED TO MEDIUM
Limited to Medium - Proceed, LIMITED speed passing signal and through turnouts, approaching next signal at MEDIUM speed.

419. LIMITED TO SLOW
Limited to Slow - Proceed, LIMITED speed passing signal and through turnouts, approaching next signal at SLOW speed.
419A. LIMITED TO DIVERGING
Limited To Diverging - Proceed, LIMITED speed passing signal and through turnouts, approaching next signal at DIVERGING speed.

421. LIMITED TO STOP
Limited to Stop - Proceed, LIMITED speed passing signal and through turnouts, preparing to stop at next signal.

422. MEDIUM TO CLEAR
Medium to Clear - Proceed, MEDIUM speed passing signal and through turnouts.

423. MEDIUM TO LIMITED
Medium to Limited - Proceed, MEDIUM speed passing signal and through turnouts, approaching next signal at LIMITED speed.
424. MEDIUM TO MEDIUM
Medium to Medium - Proceed, MEDIUM speed passing signal and through turnouts, approaching next signal at MEDIUM speed.

425. MEDIUM TO SLOW
Medium to Slow - Proceed, MEDIUM speed passing signal and through turnouts, approaching next signal at SLOW speed.

425A. MEDIUM TO DIVERGING
Medium to Diverging - Proceed, MEDIUM speed passing signal and through turnouts, approaching next signal at DIVERGING speed.

427. MEDIUM TO STOP
Medium to Stop - Proceed, MEDIUM speed passing signal and through turnouts, preparing to stop at next signal.
428. DIVERGING TO CLEAR
Diverging to Clear - Proceed, DIVERGING speed passing signal and through turnouts.

429. DIVERGING TO STOP
Diverging to stop - Proceed, DIVERGING speed passing signal and through turnouts preparing to stop at next signal.

430. DIVERGING
Diverging - Proceed at REDUCED speed, not exceeding DIVERGING speed passing signal and through turnouts.

431. SLOW TO CLEAR
Slow to Clear - Proceed, SLOW speed passing signal and through turnouts.
432. SLOW TO LIMITED
Slow to Limited - Proceed, SLOW speed passing signal and through turnouts, approaching next signal at LIMITED speed.

432A. DIVERGING TO LIMITED
Diverging to Limited - Proceed, DIVERGING speed passing signal and through turnouts, approaching next signal at LIMITED speed.

433. SLOW TO MEDIUM
Slow to Medium - Proceed, SLOW speed passing signal and through turnouts, approaching next signal at MEDIUM speed.

433A. DIVERGING TO MEDIUM
Diverging to Medium - Proceed, DIVERGING speed passing signal and through turnouts, approaching next signal at MEDIUM speed.
434. SLOW TO SLOW
Slow to Slow - Proceed, SLOW speed passing signal and through turnouts, approaching next signal at SLOW speed.

434A. DIVERGING TO DIVERGING
Diverging to Diverging - Proceed, DIVERGING speed passing signal and through turnouts, approaching next signal at DIVERGING speed.

435. SLOW TO STOP
Slow to Stop - Proceed, SLOW speed passing signal and through turnouts, preparing to stop at next signal.

436. Restricting
Restricting - Proceed at RESTRICTED speed.
437. STOP AND PROCEED
Stop and Proceed - Stop, then proceed at RESTRICTED speed.

439. STOP
Stop - Stop. Unless required to clear a switch, crossing, controlled location, or spotting passenger equipment on station platforms, a movement not authorized by Rule 564 must stop at least 300 feet in advance of the STOP signal.

440. DIRECTION INDICATOR
Flashing arrow indicators used in conjunction with block signals when illuminated, identify that the route at the next controlled location is displaying a permissive signal and the route is lined and secured as indicated by the direction of the arrow.
CENTRALIZED TRAFFIC CONTROL SYSTEM (CTC) RULES
(Rule 560 to 578)

560. SUPERVISION AND APPLICATION
CTC is applicable in limits specified in the time table or special instructions and will be supervised by the RTC. Block signals will govern the operation of trains or transfers. The RTC will issue instructions as required.

561. CTC SUSPENDED
When all or part of the CTC is withdrawn from service, trains and transfers will be governed by special instructions.

564. AUTHORITY TO PASS STOP SIGNAL
(a) A train or transfer must have authority to pass a block signal indicating Stop.
(b) The RTC may authorize the train or transfer to pass the signal but before doing so must:
   i. ensure that there are no conflicting trains or transfers within, or authorized to enter, the controlled block affected (other than one authorized by Rule 567.3 or 577); and
   ii. provide protection against all opposing trains or transfers.
(c) When signal blocking devices are used, they may be removed after the authorized train or transfer has entered the controlled block affected. The RTC must not permit any opposing trains or transfers to enter the controlled block until the authorized train or transfer has cleared such block.
(d) The train or transfer so authorized need not stop at the signal but must positively identify the signal by number; operate at RESTRICTED speed to the next signal or Block End sign, and must be governed by Rule 104.1 at spring switches, Rule 104.2 at dual control switches, Rule 104.3 at power-operated switches and Rule 611 at automatic interlockings.
(e) When a known condition prevents clearing of controlled signals into an affected block, the RTC may authorize operation at REDUCED speed to the next signal or Block End sign. The train or transfer will be advised whether or not equipment is present in the block.
   REDUCED speed remains applicable unless the block is known to be clear of equipment.
   REDUCED speed commences when the leading piece of equipment has passed entirely through the controlled location.
   The train or transfer must approach the next signal prepared to stop and there be governed by the indication displayed.
(f) The authority granted and instructions must be in writing and, where applicable, specify the route to be used. The locomotive engineer must be made aware of the route to be used before moving.

567.2 ENTERING FOREMAN’S LIMITS
Trains or transfers may be authorized to enter or move within the limits of a TOP.
(a) Each time a train or transfer is so authorized, the train or transfer must be restricted as follows:
   “Protect against foreman (name) between (location) and (location)”.
   Such restriction must be provided to the train or transfer when it is within:
   i. two controlled blocks of the limits; or
   ii. 25 miles of the limits when there is no controlled block prior.
The RTC must ensure that the authorized train or transfer is the only one that will encounter the signal indication to enter the limits.

(b) No entry into TOP limits may be made until both the conductor and locomotive engineer are aware of the authority and limits granted and have received instructions from the foreman named in the authority. Such instructions must be repeated to and acknowledged by the foreman before being acted upon.

When permission is granted from the foreman, the current time and location / mileage of the movement must be recorded next to the restriction on the track warrant. All crew members, other than the employee that recorded it, must acknowledge and initial the time and location. This track warrant must be retained until the completion of the shift.

567.3 PROCEEDING THROUGH WORK LIMITS

Trains or transfers may be authorized to enter or move within work limits of other trains or transfers.

(a) Each time a train or transfer is so authorized, the train or transfer must be restricted as follows:

“Protect against work (number) between (location) and (location)”.

(b) A train or transfer authorized as outlined in paragraph (a) must not enter or move within the working limits until a written understanding has been established with the conductor and locomotive engineer or each train or transfer. This understanding must include information with respect to the intended operation of each train or transfer and remain in place until the affected train or transfer has left the working limits.

(c) Prior to entering the limits, the train or transfer must also be authorized by signal indication or under the provisions of rules 564 or 568.

(d) When entry is to be provided by signal indication, the restriction may only be issued when the train or transfer is within:

i two controlled blocks of the limits; or

ii 25 miles of the limits when there is no controlled block prior

The RTC must ensure the authorized train or transfer is the only one which will encounter the signal governing entry into the limits.

568. SIGNAL OR PERMISSION TO ENTER MAIN TRACK

(a) A train or transfer must not foul or enter a main track, nor re-enter one after having cleared it, except by signal indication or until permission has been received from the RTC.

(b) When entry to the main track is to be made at a non-electrically locked hand operated switch, or at a switch where the seal on the electric switch lock is broken, such permission from the RTC must include the direction and route to be taken and must be in writing. The locomotive engineer must be made aware of the circumstances before moving. Before issuing such permission the RTC must;

i ensure that there are no conflicting trains or transfers within, or authorized to enter, the controlled block affected; and
block at Stop all devices controlling signals governing trains or transfers into the affected controlled block.

(c) The RTC must maintain signal blocking and not permit any opposing train or transfer to enter the controlled block until the protected train or transfer has cleared the controlled block. Signal blocking against following trains or transfers must not be removed nor may following trains or transfers be permitted to enter the controlled block until the conductor or locomotive engineer, of the train or transfer being protected, has reported that the train or transfer has entered the main track and is moving in the authorized direction.

EXCEPTION: Permission is not required to enter or re-enter the main track at a hand operated switch within the limits when authorized by Rule 577.

**Entering at an Electric Switch Lock**

To enter main track:

i. Before opening the door of the box, permission must first be obtained from the RTC.
ii. Move the operating handle to "Request" position and wait for the banner to show "Unlocked".
iii. When "Unlocked" is obtained, move the operating handle counter clockwise to "Release" position. The switch may then be opened.

To clear main track:

i. Movement must be stopped within 100 feet of the switch.
ii. Move the operating handle to "Request" position and wait for the banner to show "Unlocked".
iii. When "Unlocked" is obtained, move the operating handle counter clockwise to "Release" position. The switch may then be opened.

Emergency Release:

i. Permission must first be obtained from the RTC to break the seal.
ii. Break the seal, hold down the emergency release lever and move the operating handle to the "Unlocked" position, the switch may then be opened. After use of electric switch lock is complete: When all movement through the switch has been completed and the switch restored to normal position and locked, the operating handle must be restored to normal position, the door closed and locked and the RTC advised.

**569. CANCELLING AUTHORITIES**

(a) Authority or permission granted by Rules 564, 567.3 or 568 may be cancelled provided the train or transfer has not entered the controlled block affected.

(b) When authority granted by Rules 564, 567.2, 567.3 or 577 or the permission in writing granted by Rule 568 is cancelled, the cancellation does not take effect until it has been correctly repeated and acknowledged by the conductor and locomotive engineer of the train or transfer affected. These employees must acknowledge the cancellation by repeating the authority number, cancelled time and initials of the RTC to the RTC.

**570. ENTERING BETWEEN SIGNALS**

(a) A train or transfer that has entered a block between signals at a hand operated switch, equipped with an electric switch lock, must approach the next signal prepared to stop, unless or until the track is seen to be clear to the next signal and such signal displays a more favourable indication than Stop or Stop and Proceed.

(b) When entry to a block is made at a switch not equipped with an electric switch lock, or one where the seal on the electric switch lock is broken, a train or transfer must operate at
RESTRICTED speed to the next signal, unless or until the track is seen to be clear to the next signal, and the indication of such signal permits operation at other than RESTRICTED speed.

(c) A train or transfer that has entered a block, where it has been necessary to activate the emergency release of an electric switch lock, must move at RESTRICTED speed to the next signal.

571. RESTORING SIGNALS TO STOP

(a) Signals must not be restored to indicate stop when the train or transfer for which signals were first cleared is less than three blocks distant from the first of such signals, unless the locomotive engineer has acknowledged that they are stopped or able to stop their train or transfer without passing the controlled signal to be restored.

(b) In case of emergency, a signal may be restored to stop at any time.

573. REVERSING DIRECTION

(a) A train or transfer, having passed beyond the limits of a block, must not back into that block until the RTC has been informed, and such train or transfer is authorized by;

i the indication of a block signal, other than a Restricting Signal equipped with a plate displaying the letter “R”, or a Stop and Proceed Signal;

![Diagram](image1)

ii Rule 564; or

![Diagram](image2)

iii Rule 577.

![Diagram](image3)

NOTE: (iii) does not dispense with the requirements of Rule 564 at a Stop Signal except in the application of Rule 577(f).

(b) When a train or transfer has entered a controlled location on signal indication, and stops with its trailing end within such controlled location, it may only move in the opposite direction within the controlled location with permission from the RTC. Unless relieved by the RTC, the
movement must comply with Rule 104.2(b). RTC permission does not authorize occupancy outside of the controlled location.

(c) Provided it will not re-enter a block it has cleared, a train or transfer may reverse direction within a block without Rule 577 protection as follows:

i to reverse a distance of 300 feet or less, a crew member must take up a position to see the section of track to be used is clear and will remain clear of equipment or a track unit; or

ii to reverse a distance greater than 300 feet, a flagman must take up a position beyond the farthest point to which the train or transfer may extend. Stop signals must be given by the flagman from a point where they can be plainly seen from an approaching train or transfer from not less than 300 yards.

576. SWITCHING AT A CONTROLLED LOCATION

(a) **Signal Indication** - The preferred method of switching at a controlled location is with the use of the signal system by having the RTC signal the train or transfer over the controlled location with directional signals. If unable to clear the controlled location when switching is completed, the RTC will authorize departure by issuing a Rule 577 to the train or transfer. If the first move into the block was authorized by Rule 564, operation to the next signal must be made at RESTRICTED speed.

**EXCEPTION:** when trailing end is not within the controlled location. Rule 577 would not be required when the RTC verbally authorizes the train or transfer to pull ahead to the next signal where there are no dual control switches to be encountered.
(b) **Switching Signals** - A member of the crew will request the switching signal so that multiple moves may be made through the controlled location on a specific route. When switching is completed, the RTC must be advised to ensure the signal will be cancelled. Before doing so, the member of the crew requesting the cancellation must advise all other crew members and receive their assurance that they are and will remain clear of the switching signal limits. If unable to clear the controlled location, the RTC will verbally authorize departure. The RTC will then cancel the switching signal. The train or transfer may then proceed to the next signal at RESTRICTED speed.

To avoid having to proceed at RESTRICTED speed, trains or transfers should attempt to back clear of the switching signal on the final move and leave on a more permissive signal indication.

(c) **Rule 577.1 Signals Suspended** - The train or transfer must be authorized to enter the block before Rule 577/577.1 authority is issued by the RTC. If the train or transfer is unable to be clear of the limits when switching is completed, they must advise the RTC before leaving the location. If Rule 564 authorized the first move into the block, the train or transfer must operate to the next signal at RESTRICTED speed.

577. **WORK AUTHORITY**

(a) A train or transfer may be given work authority in writing which permits moving in either direction within specified limits. Before issuing such authority, the RTC must:

i. ensure that there are no other trains or transfers within, or authorized to enter, the required limits, and;

ii. block at Stop all devices controlling signals governing other trains or transfers into such limits.

(b) Other trains or transfers may be authorized to work within the limits of one or more trains or transfers authorized to work provided such trains or transfers are restricted on their authority as follows: “Protect against work (number) between (location) and (location)”.

(c) When entry is to be provided by signal indication, the signal may only be requested when the train or transfer is within:

i. two controlled blocks of the limits; or

ii. 25 miles of the limits when there is no controlled block prior

The RTC must ensure the authorized train or transfer is the only one which will encounter the signal governing entry into the limits.

(d) Trains or transfers so authorized as outlined in paragraph (b) must not enter or move within the working limits until a written understanding has been established with the conductor and locomotive engineer of each train or transfer. This understanding must include information with respect to the intended operation of each train or transfer and remain in place until the affected train(s) or transfer(s) has left the working limits.

(e) The RTC must maintain signal blocking against trains or transfers and must not authorize any train or transfer, other than one authorized by Rule 567.3 or as outlined in paragraph (b), to
enter the affected limits until the work authority has been cancelled. Each train or transfer must be clear of the affected limits before its work authority is cancelled.

**EXCEPTION:** If the work authority remains to be cancelled to only one train or transfer, it may be cancelled while that train or transfer is within the affected limits. In such case, the conductor or locomotive engineer must inform the RTC of the intended direction of operation. The RTC must maintain signal protection against opposing trains or transfers until the protected train or transfer has cleared the controlled block.

The locomotive engineer of a train or transfer so authorized must be made aware of the track limits before moving.

A track warrant may be issued superseding a Rule 577 work authority already in possession of the crew of the train or transfer addressed.

When superseding:

i. The track warrant must include that section of track which includes limits the train or transfer is occupying.

ii. If the superseding track warrant restricts the authority already in possession of the train or transfer addressed, the RTC must not take further action until the complete time has been acknowledged by the conductor and locomotive engineer.

iii. The RTC must not supersede a work authority when a train or transfer is within the limits of a “protect against” restriction or when another train or transfer has a “protect against” within the limits.

(f) Controlled signals within the limits other than the entry and exit signals of the authority that are indicating STOP may be considered as indicating “proceed at RESTRICTED speed”. Not applicable at automatic interlockings or interlockings controlled by a foreign railway. Rule 104.2(b) is not applicable when advised by the RTC that dual control switch(es) are lined for the route to be used.

### 577.1 SIGNAL INDICATION SUSPENDED WHILE SWITCHING

(a) A train or transfer may be authorized to manually operate specific dual control switches at a controlled location as prescribed by Rule 104.2, paragraph (d). Such authority must be included with work authority, as prescribed by Rule 577. The indications of signals governing operation over such switches may be considered suspended while switches are in the “hand” position, but only while switching is being performed at the designated controlled locations.

*Note:* Verbal permission may be given to manually operate specific dual control switches within the limits of Rule 577 authority that did not include Rule 577.1 authority for those switches.

(b) When switching is to be performed over a spring switch, which is included in the limits of a work authority prescribed by Rule 577, the indication of the signal governing operation over such switch may be considered suspended if the switch is properly lined.

When switching is to be performed at a controlled location that includes ONLY a hand operated switch, which is included in the limits of a work authority prescribed by Rule 577, the indication of the signal governing movement through the controlled location may be considered suspended but only when switching movement are being made through that switch.

### 578. RADIO BROADCAST REQUIREMENTS

(a) Within single track, a member of the crew on all trains or transfers must initiate a radio broadcast to the airwaves on the designated standby channel stating the name of the signal displayed on the advance signal to the next controlled location, controlled point or interlocking.

(b) A member of the crew located on other than the engine must confirm that the radio broadcast has been made in accordance with (a). If unable to contact the engine crew to ascertain this
information, immediate action must be taken to stop the train or transfer before it will reach the next controlled location, controlled point or interlocking.

A crew member of a movement must initiate a radio broadcast to the airwaves on the designated standby channel:

• when entering CTC at a location other than from a siding
• at each mile post where the whole mile ends in (5)

This broadcast must state any restriction(s) from that location to the next location where a broadcast is required. If more than 2 restrictions fall between these locations, state “Multiple Restrictions”, or if there are no restrictions, broadcast “No Restrictions”.

This broadcast must be made as soon as possible after receiving a WIS talker broadcast should the two conflict.

Broadcast need only be made once for movements entering and clearing CTC while switching.

Restrictions requiring a broadcast are:

• Protect against another movement or foreman
• Rule 42
• Rule 43 (exception: Broadcast NOT required when authorized speed of the movement is equal to or less than speed restriction approaching.)
• Requirement by GBO, message or verbally to manually protect a crossing.

This instruction is applicable on all main tracks (single and multi-track).
INTERLOCKING RULES (Rule 601 to 620)

601. APPLICATION
A movement will be governed by interlocking rules within interlocking limits. Interlocking signal indications govern the use of the routes within interlocking limits. Instructions may be issued by a signalman when necessary.

602. PROPER SIGNAL INDICATIONS REQUIRED
(a) Except in case of emergency, radio or hand signals must not be used when the proper indication can be displayed by the interlocking signals.
(b) A movement stopped by the signalman, other than by means of signal indication, while approaching, or within an interlocking, must not move in either direction until the proper signal or instructions have been received from the signalman.
(c) When a movement stops with its trailing end within interlocking limits, it must not reverse direction without the proper interlocking signal indication, or permission from the signalman.

604. ESTABLISHING AND CHANGING ROUTES
(a) Signals for an approaching movement must not be restored to indicate stop unless the locomotive engineer has acknowledged that they are stopped or able to stop their movement without passing the interlocking signal to be restored.
(b) In case of emergency, a signal may be restored to Stop at any time.
(c) No part of a route may be changed, nor signals cleared for a movement on a conflicting route, unless the locomotive engineer of the movement for which the route was cleared has acknowledged that they are able to comply with the new routing.

605. DELAYED IN TIMING CIRCUIT
A movement approaching an automatic interlocking, equipped with a timing circuit, must approach the interlocking signal prepared to stop if occupying the timing circuit in excess of the time specified in special instructions.
At automatic interlockings not equipped with a timing circuit, a movement occupying the track between the advance signal and the interlocking signal in excess of 5 minutes must approach the interlocking signal prepared to stop.

606. APPROACHING INTERLOCKING LIMITS
At a location not protected by an advance signal, a movement must approach interlocking limits prepared to comply with a signal indicating Stop.

607. RULE APPLICABLE AT A STOP SIGNAL
When an interlocking signal indicates Stop and no conflicting movement is evident, the following will apply:

<table>
<thead>
<tr>
<th>TYPE OF INTERLOCKING (as indicated in special instructions)</th>
<th>APPLICABLE RULE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual</td>
<td>608</td>
</tr>
<tr>
<td>Locally-Controlled</td>
<td>609</td>
</tr>
<tr>
<td>Remotely-Controlled</td>
<td>610</td>
</tr>
</tbody>
</table>
608. MANUAL INTERLOCKING
Movements operating through the limits of a manual interlocking will be governed by special instructions.

609. LOCALLY-CONTROLLED INTERLOCKING SIGNAL INDICATING STOP
(a) A movement must have authority to pass a locally-controlled interlocking signal indicating Stop. When no conflicting movement is evident:
   i the signalman may authorize such movement to pass the signal, but before doing so, the signalman must provide protection against all conflicting movements; and
   ii the movement so authorized need not stop at the signal but must positively identify the signal by number. It must move at RESTRICTED speed to the next signal or Block End sign and will be governed by Rule 104.1 at spring switches, Rule 104.2 at dual control switches and Rule 104.3 at power-operated switches.

(b) Before moving, the locomotive engineer must be informed of the situation.

(c) When the signalman is off duty at a locally-controlled interlocking, a movement stopped by an interlocking signal indicating Stop will be governed by special instructions.

610. REMOTELY-CONTROLLED INTERLOCKING SIGNAL INDICATING STOP
(a) A movement must have authority to pass a remotely-controlled interlocking signal indicating Stop. The signalman may authorize the movement to pass the signal but before doing so must ensure that there is no conflicting movement in the route to be used, and that all devices controlling signals governing conflicting movements are blocked at Stop. The authorization must specify the route to be used, and must be in writing.

(b) The movement so authorized need not stop at the signal but must positively identify the signal by number. It must move at RESTRICTED speed to the next signal or Block End sign and will be governed by Rule 104.1 at spring switches, Rule 104.2 at dual control switches and Rule 104.3 at power-operated switches. If there is a railway crossing at grade equipped with a box marked “switches” within the interlocking, the provisions of Rule 611 apply.

(c) The locomotive engineer must be made aware of the route to be used before moving.

611. AUTOMATIC INTERLOCKING SIGNAL INDICATING STOP
When a movement is stopped by an automatic interlocking signal indicating Stop:
• paragraphs (a), (b) and (c) apply when no other movement or track work is evident; or
• paragraph (d) applies when track work is evident.

(a) When no other movement or track work is evident;
   i a crew member, after opening the box marked “switches”, will observe panel lights, where provided. If those of the conflicting route(s) are lighted and no conflicting movement is evident, the crew member will open the knife switch and may then allow the movement to proceed;
ii  (MULTI-TRACK) in the box marked “switches” where lights are provided to indicate
the approach of a movement, if those of the conflicting route and those of the same
railway on the adjacent track are lighted and no other movement is seen
approaching, the crew member will open the knife switch and may then allow the
movement to proceed;

iii  where lights are not provided, or where those of the conflicting route(s) are not
lighted, the crew member, after opening the knife switch, must wait five minutes,
unless a greater period is specified in special instructions and posted in the box
marked “switches”, before permitting the movement to proceed;

(MULTI-TRACK) - When the lights of the same railway on the adjacent track are
not lighted and no other movement is seen approaching, the crew member will
contact the RTC before opening the knife switch, to ascertain whether or not a
movement is closely approaching on that adjacent track to prevent displaying
STOP indications to such movement.

iv  after complying with (i), (ii) or (iii) the movement must then operate at
RESTRICTED speed to the next signal or Block End sign; and

v  after the movement has occupied the crossing, the switch must be closed and the
box marked “switches” locked.

(b)  Where a pushbutton is provided, to enable a reverse move to be made over the crossing, the
crew member will open the box, depress the pushbutton and be governed by signal indication.
If the signal fails to clear, the instructions contained in paragraph (a) must be complied with.

(c)  A movement required to switch within or into automatic interlocking limits must, after complying
with (a)(iii) leave the knife switch open until switching is completed. When the knife switch is in
the open position, signals governing the switching may be considered suspended but only
while switching.

(d)  When track work is evident; i.e. when encountering a “840.3 Protection” visible indicator or a
special lock on the box marked “switches”; after stopping at the signal, the movement must not
proceed beyond the signal until instructions have been received from the foreman. When so
authorized by the foreman to proceed, the movement must move at RESTRICTED speed to
the next signal or Block End sign.

612. STOPPED FOUL OF SIGNAL
When a movement, which has accepted an indication of an interlocking signal permitting it to proceed,
stops before the leading locomotive or car has completely passed such signal, it may then proceed
only after receiving permission from the signalman or under the provisions of Rule 611.

614. LEAVING INTERLOCKING IN CTC
When an interlocking is located in CTC, the indication of the last interlocking signal, in the direction of
travel, also governs the movement to the next signal or Block End sign. If necessary to pass such
signal in accordance with Rule 609, 610 or 611, unless otherwise specified in special instructions, Rule
564 also applies beyond the interlocking limits.

615. SINGLE UNIT OF EQUIPMENT RESTRICTED
A single unit of equipment must not be left standing on the movable portion of an interlocked
drawbridge or within the interlocking limits of a railway crossing at grade.

616. DAMAGE TO INTERLOCKING
When it is known or suspected that:
i a derailment has occurred; or
ii track, appliances or signals are damaged or malfunctioning;

the signalman must block all controls for signals governing movements over the affected routes at Stop. No move may then be permitted until the signalman has established that they may pass safely.

617. DISCONNECTING TRACK PARTS OR LOCKING DEVICES
Before any movement is permitted to pass over any movable track part or locking device which has been disconnected, all movable track parts affected must be spiked or secured in the required position and their controls blocked to prevent them from being operated.

618.1 PROTECTING AGAINST A FOREMAN
Movements may be authorized to enter or move within the limits of a TOP.

(a) Each time a movement is so authorized, the movement must be restricted as follows: “Protect against foreman (name) between (location) and (location)”.

Such restriction must be provided when the movement is within:

i two controlled blocks of the limits; or
ii 25 miles of the limits when there is no controlled block prior.

The RTC or signalman must ensure that the authorized movement is the only one that will encounter the signal indication to enter the limits.

(b) No entry into TOP limits may be made until both the conductor and locomotive engineer are aware of the authority and limits granted and have received instructions from the foreman named in the authority. Such instructions must be repeated to, and acknowledged by, the foreman before being acted upon.

When permission is granted from the foreman, the current time and location / mileage of the movement must be recorded next to the restriction on the track warrant. All crew members, other than the employee that recorded it, must acknowledge and initial the time and location. This track warrant must be retained until the completion of the shift.

(c) In addition to the permission and instructions received from a foreman to enter and/or move within the limits, trains or transfers must also be authorized to enter the TOP limits by signal indication or the provisions of Rules 609, 610 or to reverse within the TOP limits under the permission of the signalman.

619. TRANSFER BY SIGNALMEN

(a) Where an ECM is used or where a computer assisted system generates a list as outlined in (b), the relieving signalman must sign into the system in the presence of the on-duty signalman, and receive verbal and/or written transfer of other necessary instructions and information.

(b) Except as prescribed in paragraph (a), before being relieved, the signalman must make a transfer in a book or on a form provided for that purpose, of TOP and other authorities in effect. The transfer must include the time and other necessary information and must be signed by both the relieved and the relieving signalman.

620. NON-INTERLOCKED DRAWBRIDGES AND RAILWAY CROSSINGS AT GRADE
A movement must stop before any part of it passes the governing stop sign at a non-interlocked drawbridge or at a non-interlocked railway crossing at grade. If no conflicting movement is evident and
the route is properly lined, the movement may resume. Special instructions will govern when there is an attendant in charge.
PROTECTION OF TRACK UNITS AND TRACK WORK (Rule 802-803)

NOTICE

Wherever the term RTC appears herein, it also applies to signalman.

A foreman must advise and/or obtain permission from the RTC prior to commencing any track work or operating a track unit which will interfere with the signal system. In addition, foreman must keep informed as to the location of movements and must not open a main track switch or perform any work which could cause a block or interlocking signal to display a more restrictive indication to a movement.

Portable Derails:

When track work is being protected under a form of positive protection, for example TOP, Rule 841 or 842, and protection against movement of unattended equipment into the work limits is required, portable derails may be used as an additional protection under the following conditions:

i Portable derails are located within the protected limits

ii Employees protected or conflicting foreman are informed of their placement and location and are recorded in job briefing books.

iii Derails are removed or placed in the non-derailing position and locked, BEFORE a movement is permitted into the work limits. If still attached to the track, permission to enter the work limits must include derail location and position.

iv Derails are removed from the track before protection is cancelled, removed or expired.

802. SPEED

Unless otherwise authorized, track units must always be operated at track unit speed.

803. TRACK UNIT AND TRACK WORK AUTHORIZATION

Refer to Rules 805 to 813 for rules applicable within interlocking limits and non-interlocked railway crossings at grade and non-interlocked drawbridges.

(a) Track occupancy by a track unit is permitted as follows:

<table>
<thead>
<tr>
<th>Territory</th>
<th>Rule or Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCS</td>
<td>Rule 842, TOP</td>
</tr>
<tr>
<td>CTC</td>
<td>Rule 842 or TOP</td>
</tr>
<tr>
<td>Signaled Track</td>
<td>Rule 842 or TOP</td>
</tr>
<tr>
<td>NMT</td>
<td>Rule 841</td>
</tr>
<tr>
<td></td>
<td>Rule 105(c) or where it is not applicable, it must be known that there is no conflicting movement(s)</td>
</tr>
<tr>
<td></td>
<td>TOP when SCT is applicable or specified by special instructions</td>
</tr>
<tr>
<td></td>
<td>Other forms of protection when specified by special instructions</td>
</tr>
<tr>
<td></td>
<td>On tracks where kicking is permitted per Rule 113.5(a), track must be protected by Rule 841(c)(i) or (iii)</td>
</tr>
</tbody>
</table>

(b) Track work is permitted as follows:

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<tbody>
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<td>-----------</td>
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</tr>
</tbody>
</table>

(c) When no longer required, the foreman must promptly cancel or remove the protection and advise any person responsible for the track.

(d) Prior to the removal, cancellation or expiration of protection, or providing instructions to a movement; the foreman must ensure, unless otherwise protected:

   i the track is safe for movements at normal speed; and
   
   ii employees or track units for which the foreman is responsible are clear of the track.

(e) If a track unit occupies or fouls a main track, SCT siding, or interlocking limits; or track work is undertaken without authority, it must be stopped and protection as required by Rules 35 and 125 initiated. The RTC or signalman must be advised as soon as practicable; and will issue instructions as necessary.
TRACK WORK AND TRACK UNITS AT RAILWAY CROSINGS AT GRADE, DRAWBRIDGES, INTERLOCKINGS AND NON-INTERLOCKINGS (Rule 805 to 813)

805. MANUAL AND OTHER INTERLOCKINGS NOT SPECIFIED IN THESE RULES – PROTECTION OF TRACK UNITS AND TRACK WORK

See special instructions.

806. AUTOMATIC INTERLOCKINGS – RAILWAY CROSINGS AT GRADE

(a) Track Work:
   Rule 840.3 applicable.

(b) Track Units:
   If no conflicting movement is evident, the track unit may proceed but must stop clear of the conflicting route, where the foreman must then unlock the box marked “switches”, and open the switch at the interlocking. The switch must not be closed until the track unit has cleared the conflicting route(s).

   EXCEPTION: A track unit that affects the signal system must stop before passing the interlocking signal.

   Before permitting the track unit to proceed the foreman must wait five minutes or such greater time as may be posted in the box or indicated in special instructions. The required waiting period need not be observed when occupancy indication lights on the conflicting route(s) are illuminated.

   MULTI-TRACK - When the lights of the same railway on the adjacent track are not lighted and no movement is seen approaching, the foreman will contact the RTC before opening the switch, to ascertain whether or not a movement is closely approaching on that adjacent track to prevent displaying STOP indications to such movement.

808. LOCALLY-CONTROLLED INTERLOCKING – DRAWBRIDGES

(a) Track Work:
   Separate TOP for the interlocking or other written instructions issued by the signalman.

(b) Track Units:
   Operation beyond the interlocking signal must not be made until verbal authority, hand signal or separate TOP for the interlocking has been received from the signalman.

   If there is no signalman on duty, the track unit may proceed after the foreman has ascertained that the route is properly lined.

809. REMOTELY-CONTROLLED INTERLOCKING – RAILWAY CROSSING AT GRADE

(a) Track Work:
   Separate TOP for interlocking unless in possession of other protection encompassing all routes which provide access to the working limits.
(b) Track Units:
    Operation beyond the interlocking signal must not be made until a separate TOP for the
    interlocking has been received from the signalman.
    Unless otherwise specified in special instructions, the signalman may provide verbal authority
    for the foreman to occupy the interlocking limits.

810. REMOTELY-CONTROLLED INTERLOCKING – DRAWBRIDGES

(a) Track Work:
    Separate TOP for interlocking.

(b) Track Units:
    Operation beyond the interlocking signal must not be made until a separate TOP for the
    interlocking has been received from the signalman.

811. SIGNALMAN REQUIREMENTS – CONTROLLED
      INTERLOCKINGS
Before giving verbal authority or a hand signal to proceed, a signalman must;
(a) ensure there are no conflicting movements within or authorized to enter the authorized route;
(b) block at STOP all devices controlling signals governing movements into the authorized route;
    and
(c) maintain the blocking until the foreman has reported clear of the authorized route.

812. NON-INTERLOCKED RAILWAY CROSSINGS AT GRADE

(a) Track Work:
    Rule 841 applicable.

(b) Track Units:
    Operation beyond the governing stop sign must not be made until it is ascertained that no
    conflicting movement is evident. Special instructions will govern, when there is an attendant in
    charge.

813. NON-INTERLOCKED DRAWBRIDGES

(a) Track Work:
    Rule 841 applicable.

(b) Track Units:
    Operation beyond the governing stop sign must not be made until it has been ascertained that
    the route is properly lined.
    Special instructions will govern, when there is an attendant in charge.
TRACK UNITS OPERATING OVER POWER-OPERATED
AND DUAL CONTROL SWITCHES (Rule 814 to 846)

814. POWER-OPERATED SWITCHES
When a track unit(s) is required to move over a power-operated switch;
(a) the switch must be lined by the RTC, except where the RTC gives permission to the foreman to have it operated by a qualified employee; and
(b) when a power-operated switch is operated by a qualified employee, and after the track unit has cleared the switch points, the foreman must immediately advise the RTC.

815. DUAL CONTROL SWITCHES
When a track unit(s) is required to move over a dual control switch;
(a) the switch must be lined by the RTC, except where the RTC gives permission to the foreman to operate such switch in the “hand” position; and
(b) when a dual control switch is operated by the foreman in the “hand” position, and after the track unit has cleared the switch points, the foreman must ensure that the selector lever has been restored to the “power” position and locked and immediately advise the RTC.

When the foreman requests that the RTC lines a dual control switch to allow a track unit to move over it, the foreman must receive confirmation from the RTC that it is lined and locked for the requested route.

816. FOREMAN REQUIREMENTS - IDENTIFYING ARRIVAL AND/OR DEPARTURE OF MOVEMENTS
When a foreman has been authorized to perform track work behind or has authorized a movement(s) to pass through working limits, the foreman or sub-foreman must not enter the track at a location within the limits until it has been positively ascertained that the movement(s) have arrived and/or left that location. Such information must be received from the RTC or a crew member or by the foreman or a sub-foreman identifying that a movement has arrived by visually identifying the designated engine and marker. Movements operating without a marker must be identified by the foreman or a sub-foreman by direct communication with a member of the crew of such or by the foreman through the RTC.

This requirement is also applicable to an employee providing arrival and departure information to the RTC from a field location.

840.3 PROTECTION OF TRACK WORK AT AUTOMATIC INTERLOCKINGS RAILWAY CROSSINGS AT GRADE
Foreman must also refer to Rule 611(d).
When the foreman is in possession of other protection encompassing all routes within the interlocking limits, protection as per Rule 840.3 is not required.
Track work may be performed within the limits of an automatic interlocked railway crossing at grade after protection has been provided as follows:
(a) Permission must be obtained from the RTC of both railways (where applicable).
(b) After permission has been obtained and before any track work is started, the foreman must open the box marked “switches”, open the knife switch and must wait five minutes or such greater time as may be posted in the box. The switch must be left open until track work is completed.
In addition, a visible indicator marked “840.3 Protection” or special lock must be secured to the box marked “switches” to indicate that track work is ongoing.

After track work is completed the RTC of both railways (where applicable) must be notified.

841. PROTECTION OF TRACK WORK ON NON-MAIN TRACK

(a) Before applying protection the employee responsible, if any, for the track must be advised.

(b) When working limits are on a track where the kicking of equipment is permitted per Rule 113.5(a), protection must be provided by (c)(i) or (iii).

(c) The foreman must provide protection to prevent access to the working limits using one or more of the following methods:

   i. lock switch(es) with a special lock, in a position to prevent a movement from entering the working limits;

   ii. place a red flag by day, and in addition, a red light by night, or when day signals cannot be plainly seen, between the rails to prevent a movement from entering the working limits. Such signal(s) must be placed at least 100 yards from the working point where practicable, where there will be a clear view of the signal(s) from an approaching movement of at least 300 yards. If there is equipment on the track which will prevent a clear view of 300 yards, the red signals must be placed to include such equipment; or

   iii. a red signal displayed per (ii) and a derail locked in the derailing position with a special lock.

When possible, the rule 841 protection must be applied to the entire track.
When protection is required, the request must be in writing and on the prescribed form. When protection has been provided, the track and time limits must be confirmed in writing prior to the foreman named in the GBO arranging for the display of the prescribed flags as follows:

i. place a red flag at each identifiable location stated in the GBO to the right of the track as seen from an approaching movement; and

ii. place a yellow over red flag at least two miles outside the track limits defined by the red flags, to the right of the track as seen from an approaching movement.

iii. Track work must not be undertaken until the prescribed signals are in place in all directions.

When automatic flags are used for planned protection, the following conditions must be met:

- Flags will be programmed to display at the times stated in the GBO. They are not to be programmed to be displayed 30 mins prior to or after the Rule 42.

- All required flags must be observed by a rules qualified employee to be properly displayed prior to commencement of the work. This can be done by the protecting Foreman, another qualified employee or train crew.

- When no longer required, it must be verified that the flags are not displayed. This can be done by the protecting Foreman, another rules qualified employee or train crew.

When placement of prescribed signals is not possible by the time stated in the GBO, the RTC must be advised. Crews on affected movements must be advised by the Foreman or by the RTC.
iv flags must not be in place more than 30 minutes prior to or after the times stated in the GBO unless provided for in the GBO.

v Track limits must not be overlapped.

(b) When a specific track is to be used, instructions from the foreman must specify the track upon which the instructions apply.

In CTC, when protection is in effect on more than one track or when signalled turnouts are within the limits there must be a clear understanding in writing between the foreman and the RTC as to what route(s) movements are to use. The foreman’s instructions to the movement must be identical to the routing arrangement with the RTC. Should the foreman require operation on a specific track when the arrangement with the RTC was for more than one route, the foreman must make a new arrangement with the RTC before authorizing the movement.

(c) Track limits shall be kept as short as practicable and be expressed in whole miles or by other identifiable locations.

(d) The GBO must indicate the location of flags that cannot be placed at the distance prescribed.

843. SLOW TRACK PROTECTION – RULE 43

(a) When slow track protection is required the request must be in writing and when practicable on the prescribed form, and after GBO protection has been provided, the speed restriction(s) and limits must be confirmed to the foreman in writing who will arrange to place a:

i yellow flag to the right of the track as seen from an approaching movement at least two miles in each direction from the outermost limits indicated in the GBO, and

ii green flag to the right of the track as seen from an approaching movement in each direction, immediately beyond the defect.

(b) The GBO must indicate the location of flags that cannot be placed at the distance prescribed.

(c) When the placement of flags as prescribed is delayed, the RTC must be advised and the following must be added to the Form V: “Signals may not be in place.” The flags must be placed as soon as possible and the GBO changed accordingly.
(d) When a restriction is located at a single mile point, one green signal will be displayed to identify the restriction and may be displayed to either side of the track.

(e) When a rail break has been detected by an engineering employee and it is safe to operate over the break at a speed less than posted speed, the RTC will provide GBO protection to affected movements stating the authorized speed over the break and how such location is marked in the field, by either a Rail Break Sign or foreman, at the break. Flags required will not be in place.

(f) The regular placement of flags must be utilized after 24 hours if the defect is continuing.

845. SIGNAL PLACEMENT MULTI-TRACK

Except on a subdivision designated in special instructions, signals required by Rules 842 and 843, must be placed to the outside of the outermost track(s) and not between the main tracks.

846. MOUNTING OF SIGNALS

(a) Signals displayed for protection of track work and track conditions must provide an unobstructed view of them as seen by the crew of an approaching movement. They will be of the prescribed colour, size and shape.
(b) When a day signal cannot be plainly seen, each flag must be reflectorized or equipped with a reflectorized lens, target or disc, or a reflectorized sign may be used instead. In the application of Rule 841, the required light must be displayed.

(c) Red, yellow, and yellow over red flags may display those colours only in the direction of an affected approaching movement. Green flags must display that colour in both directions.
TRACK OCCUPANCY PERMITS (Rule 849 to 864)

849. BEFORE ISSUING TOP AUTHORITY
Before issuing TOP authority, the RTC must;

(a) ensure there is no conflicting movement within, or authorized to enter, the TOP limits to be granted unless such movement has been restricted in accordance with Rule 311, 567.2 or 618.1; and

(b) in CTC and controlled interlockings, block at Stop all devices controlling signals governing the entry of movements into the limits to be granted. Signal blocking applied to protect a TOP must be maintained until the TOP is cancelled to the foreman.

A TOP may be issued superseding a TOP already in possession of the Foreman addressed. When superseding a TOP that includes limits the Foreman is occupying, the superseding TOP must include that section of track.

850. SAME OR OVERLAPPING TOP LIMITS
The RTC must not authorize a movement to enter overlapping TOP limits.

852. TOP ENCOMPASSING CONTROLLED LOCATIONS
When authorized by a TOP to occupy a track within a controlled location, the authority includes any track within the controlled location that connects to that track but only to a point on the connecting track where occupancy would require separate TOP authority.

853. REMAINS IN EFFECT
A TOP once in effect continues so until superseded or cancelled.

854. ONE TRACK UNIT – FOREMAN REQUIREMENTS
Before acting under the authority of a TOP, a foreman in charge of a single track unit must;

(a) read the TOP aloud to the employees accompanying the track unit; and

(b) require those employees who hold a valid certificate of rules qualification to read and initial the TOP.

855. MULTIPLE TRACK UNITS AND/OR TRACK WORK – FOREMAN REQUIREMENTS
Before acting under the authority of a TOP, a foreman in charge of the protection of track work or in charge of more than one track unit must;

(a) read the TOP aloud to at least one other employee involved in the work who holds a valid certificate of rules; and

(b) when conditions permit, require those to whom the TOP is read aloud, to read and initial the TOP.

Procedures for Protection of Sub-Foreman work groups
Where “Train” is referenced in the following special instruction, it applies to “Trains, Transfer or Engines”

Sub-foreman protection is restricted for use for those work groups performing work directly related to the protecting foreman’s work project.
The protecting foreman named on the original authority, must enter the name(s) of the sub-foreman in charge of the separated work group, in the applicable portion of the authority.

Only 4 sub-foreman are allowed at one time unless otherwise specified in special instructions. Sub-foremen are restricted from protecting other sub-foreman.

Prior to commencing work, the sub-foreman must:

i. be provided with or transmitted a copy of the protecting foreman’s TOP or Rule 42, from the protecting foreman.

ii. If authority is transmitted, the employee copying this information must repeat it back to the protecting foreman who will check and underscore it as it is repeated back. Once repeated correctly, the foreman will advise the employee it was correct and they will compare time.

iii. Apply Rule 855 with any employees accompanying him.

Any changes to the protecting foreman’s authority, including changes to other sub-foreman, must be communicated to the sub-foreman and they must document these changes.

Prior to allowing a train to enter the working limits, the protecting foreman must:

i. Enter the designation and direction of the train on the clearing record.

ii. Advise sub-foreman of the train and direction, and receive confirmation from all sub-foreman that every employee and machine are clear of the track.

iii. Place a check mark in the box whose number corresponds with that of the sub-foreman.

iv. Record the time the train was authorized to enter the work limits as well as the authorized route/speed, on the clearing record.

Before allowing a sub-foreman work group to recommence work, the protecting foreman must:

i. Ensure any train authorized has departed the authority limits or work location of the foreman or sub-foreman.

ii. This must be done by personal observation or radio contact with the involved train by the foreman or sub-foreman and the clear time must be recorded on the clearing record of both foreman and sub-foreman.

The sub-foreman must advise the protecting foreman when protection is no longer required.

Prior to cancelling the authority or prior to the expiration of the time limits on a Rule 42, the protecting foreman must receive confirmation from each sub-foreman that all employees and machines are clear of the track.

A maximum of 4 sub-foremen are permitted under Rule 855 SI. For large projects, permission for up to 8 sub-foremen may be granted by the Chief Regional Engineer and Operating Practices, who will review the work and assess the requirement. Two or more Rule 842’s, for the same project, should be combined but kept as small as possible to avoid abutting against another Rule 842. When granted, the following instructions apply.

1) When a Rule 842 Foreman is protecting between 5 and 8 separated work groups, the Rule 842 Foreman must only be engaged in the clearing of trains (i.e. not be performing any track work and/or have any workers under their direct supervision). The employee in charge is to be in a location with the least amount of distraction.

2) Unless authorized by the Chief Regional Engineer and MCO/CRTC, the maximum length of any Rule 842 will be 10 miles.

3) The term “Employee in charge or EIC (name)” will be used by the employee in charge of the Rule 842 and the term “Sub-Foreman (Name)” will be used for those being protected by the EIC and when communicating with each other. Communication between EIC and Sub-Foreman must be done on a dedicated channel.

4) The Employee in Charge must have the expanded version of the form allowing protection of up to 8 sub-foreman.
856. COMMUNICATION BETWEEN EMPLOYEES AND FOREMEN
An employee who has been made aware of the contents of the TOP must remind the foreman of the contents in sufficient time to ensure compliance.

857. MULTIPLE TOP
Conflicting TOP
Where limits of TOP overlap, only 3 foremen will be allowed a TOP at one time within the overlapping limits. Visiting foreman, those not directly involved with the work project of the foreman holding the TOP, are not allowed at any time.

A foreman requesting a TOP which overlaps another TOP will be provided the conflicting information, of all conflicting foreman from the RTC.

Prior to entering any conflicting limits the foreman must:
• Contact all other foreman holding permits within the overlapping limits.
• Obtain a definite understanding, in writing, as to each other’s movements and the protection to be provided.

Each foreman must maintain a written record of the original and any new understandings, including when the foreman is clear of the conflicting limits.

Regardless of understandings between foremen, the provisions of TRACK UNIT SPEED must be complied with at all times.

If communication fails after an understanding in writing has been made, or the foreman is unable to contact the conflicting foreman, the RTC must be contacted to verify if the foreman shown as conflicting foreman still holds the overlapping authority.

If the conflict no longer exists, the RTC may verbally advise the foreman of this.

If the conflict is still in effect and unable to contact the conflicting foreman, including through the RTC, the foreman may enter the overlapping limits but only to the point to cancel the preceding authority or clear the main track.

Examples of written understanding:
"I am in the clear at Able, okay through my limits with no restrictions, call me when you are clear the limits." "I am working east of mile 16, do not pass mile 16 without contacting me."

EXCLUSIVE TOP (Rule 858 to 861)

858. EXCLUSIVE DESIGNATION
When an Exclusive TOP is issued, it must be indicated in the appropriate section of the TOP.

859. EXCLUSIVITY
Before an Exclusive TOP is issued, the RTC must verify that no other TOP, Form Y or Form T is in effect within the limits to be covered by the TOP.

An Exclusive TOP must not be issued as a Follow-Up TOP.

860. AFTER ISSUING AN EXCLUSIVE TOP
Within the limits of an Exclusive TOP, the RTC must;
(a) not issue another TOP;
(b) not issue a Form T or Form Y;
(c) not issue a Rule 311, 567.2, 618.1 authority to a movement.

861. EXCLUSIVE TOP – TWO TRACK UNITS
When a second track unit is occupying the limits, both track unit operators must have a thorough understanding in writing as to the operation of each other.

FOLLOW-UP TOP (Rule 862-863)

862. RTC REQUIREMENTS
When one or more movements remain within the limits to be covered by a TOP, the RTC may issue a Follow-Up TOP to a foreman, provided such movements are authorized to proceed in the same direction and have left the location where the foreman will enter the limits of the TOP.

The RTC;
(a) may only issue the TOP to the foreman when the foreman is at the location where the foreman will enter the limits of the TOP;
(b) must not issue the TOP if any of the movements are authorized to reverse within the limits; or
(c) authorize any of the movements to reverse within the limits; and
(d) before issuing the TOP, verify that each movement has left the location where the foreman will enter the limits; and
(e) in the TOP, include the designation, time and location that the last movement has left.

Not applicable in OCS territory.

863. FOREMAN REQUIREMENTS
When a Follow-Up TOP has been issued to a foreman and one or more movements remain within the limits of the TOP, the foreman, or any employees for whom the foreman is responsible, must;
(a) not enter the limits of the TOP except at or behind a location which the designated movement has left;
(b) not pass the designated movement within the limits of the TOP.

Not applicable in OCS territory.

TOP CANCELLATION (Rule 864)

864. TOP CANCELLATION
(a) The foreman must advise the RTC of the TOP number to be cancelled;
(b) the RTC must state the TOP number and limits of the TOP to be cancelled which must be acknowledged as correct by the foreman;
(c) the RTC will state the TOP number, cancelled time and the initials of the RTC which must be repeated by the foreman; and
(d) the cancellation does not take effect until it has been correctly repeated and acknowledged by the foreman.
CANADIAN NATIONAL RAILWAY

Operating Practices

Effective on

June 30, 2023

Transportation Safety Observation Manual
5th Edition
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INTRODUCTION

Transport Canada’s Safety Management System Regulations 2015 require the verification of employee knowledge and compliance to regulations, rules, notices, etc. Safety Observations provide a method to assess the extent to which CN employees understand and are complying with the CROR, rules, policies, instructions and general procedures specific to an employee skill set.

Safety Observations provide CN employees the opportunity to demonstrate their ability to apply the rules and special instructions in the work environment.

Quality Safety Observations communicate to employees what is expected of them. By reviewing rule requirements in a field application, both the employee and the supervisor can gauge the level of rules proficiency. The observing manager should use this process to verify that employees are working safely with all company rules, policies, instructions and procedures.

When company expectations are not being met, this process will allow for correction of operating deficiencies before those same deficiencies become incidents.

PURPOSE OF THIS MANUAL

This manual is designed to provide a reference guide on all aspects of Transportation Safety Observations from preparation to data entry. It will assist in the administering of Safety Observations on a system basis assuring employees an opportunity to demonstrate their command of rules and instructions, while giving supervisors the chance to praise a job well done or to correct operating deficiencies.

CN PHILOSOPHY

As an observer, you should regard these observations as an opportunity to verify that employees are working safely and in compliance with all company rules, policies, instructions and procedures. Quality observations and employee interaction/feedback is one of the most valuable services you can perform to ensure safe, efficient rail operations.

General Observation Information and Process

Each qualified officer is required to perform and record their findings in the Safety Observation site (PMRC). The monthly or weekly required number of observations and types of observations are part of each Regional/Divisional Safety Management Plan

CONDUCTING A QUALITY OBSERVATION

Quality observations require strict adherence to this manual, rules, policies and procedures. The Observing Officer of record must be qualified in the CROR and associated observations as administered during an Operating Officer Seminar or during a QSOC Induction course.

Observations should be planned in advance, not adhoc. Your Supervisor must be aware that you will be conducting Safety Observations and should not be assigned other duties during this time.

The Observing Officers must be familiar with the requirements of each observation, and be familiar with any local instructions and/or terminal manual contents for the location where the observations will take place. Each observing officer must meet all company requirements, i.e. PPE, General Rule A, etc. When observing unfamiliar locations each observing officer should have a list of known assignment start times, locations, radio channels utilized, as well as phone numbers of local officer contacts. Additionally when observing on the main track both the radio channel and phone numbers of the RTC and Chief RTC must be known.

Quality Observations

Ensure observations are performed at random periods throughout the entire month, including weekends and holidays, and during all hours of the day and night, selecting certain days for observations or performing a large number of observations at one time or location should be avoided. Avoid doing the same observations at the same locations month after month.

Unsuccessful Observations

Do not be afraid of walking away from an observation. There will be occasions, for a number of reasons that the observation was not successful (for example light failed or fusee burned out). Such observations should not be counted. Simply disregard them.

With a few exceptions, activities entered as Safety Observations must be observed as they happen by the observing officer. Unattended equipment, position of switches or derails, etc. may be observed as found. A rule violation that is discovered when not performing a safety observation must not be recorded i.e. Car found over derail or a switch run-through.
ASSESSING THE RISKS

Before setting up observations that affect or stop train movements, conduct your own Risk Assessment. The RTC or control operator must be informed, if possible prior to the observing, unless they are part of the observation. Circumstances surrounding an observation must not create a hazardous condition for the employees being observed or the observing officer(s). During any signal observation, a manager with a radio must remain positioned at the signal to stop the train in case of an at risk behaviour. Use of track shunts is permissible when a member of the observing team has been trained in the proper procedures. Observing managers must be aware of all road crossing and exercise caution against false activations.

When setting up observations, use good judgment, and do not overlook the following when establishing situations:

- Weather
- Visibility
- Train Operations
- Grade Conditions
- Other related factors

OBSERVATION RESULTS

Safety Observations can have 1 of 2 results, “safe” or “at risk”. An important aspect of Safety Observations is the follow-up, which provides employees with feedback on their performance as it relates to CN’s expectations.

The observing officer must ALWAYS communicate the results of the observation to the employee regardless if they observed a safe or an at risk behaviour. This communication should occur as soon as possible.

Acceptable methods of notification are:

1) Face-to-face meeting (most desirable), this may require contacting the supervisor at the next terminal and have the crew met on arrival.
2) Telephone conversation
3) Radio contact – this is the least desirable method however may be necessary due to operational requirements. This method is not to be used in the case of an at risk observation.

NOTE: When an at risk behaviour is observed, an in person conversation must be held with the employee to ensure they understand the application of the rule/procedure. No at risk behaviours are to be recorded in the system without having a discussion with the employee(s).

AT RISK OBSERVATIONS

When at risk observations occur, an increased number of that particular observation should be conducted to ensure other employees understand and are demonstrating safe behaviours with those rule requirements. Individuals who demonstrate an at risk behaviour must be notified immediately and corrective measures taken to ensure safety. The Observing Officer must determine whether the at risk behaviour was due to lack of understanding of the rule requirement or as a result of a conscious decision to violate the rule. The observing manager must personally see or hear a rule violation, which may be for any requirement in the rule, whether specifically detailed in this reference or not.

HANDLING AT RISK BEHAVIOURS

CN is committed to provide a safe work environment in which all employees can experience meaningful work, contribute to the success of the company, and find reward for safe and efficient job performance.

To ensure a safe environment for our employees and the communities we serve, the movement of trains, and maintenance of equipment, track and facilities must be conducted on the basis of carefully designed rules and procedures. Violation of these rules and procedures may result in death, injury and/or substantial financial loss, and, therefore, will be treated in a serious manner. When at risk behaviours are observed the observing officer must determine if further action is required. The actions of the employees being observed must be regarded as if the employee was working normally. Following the observation, the officer must determine if further action is required. For example testing for cause or if removal from service is warranted. Employees must be advised if they have demonstrated an at risk behaviour.

When an at risk behaviour of a foreign crew on CN property are observed, notification to the crew and a detailed report given to the foreign railroad must be completed prior to the observation being recorded into
the database, this must be completed within five (5) days of the incident. Details of follow-up from the foreign crew’s supervisor must also be recorded in the observation i.e.: statement to follow

ENTERING COMMENTS

Comments must be entered for each observation. Proper use of the comment section will allow the officers to review the details of the observation when required. The Safety Observation comments are crucial and must contain pertinent information on what was observed. Conversely, the Observing Officer should not include information which may not be relevant.

Examples of Comments:

Safe Behaviour Example:
Conductor John Smith lined the west end switch for track AB68. Conductor Smith used proper body mechanics as outlined in GOI 8 12.7 and checked the points, target and route as per Point and Call 104 (b) SI.

At Risk Behaviour Example:
Conductor John Smith was observed lining the west end switch for track AB68. Conductor Smith used their foot to push the ergonomic switch handle in place which is not permitted as per GOI 8 12.7. Conductor Smith did not apply the point and call procedure as per Rule 104 (b) SI after lining the switch. Transportation Manager Jones immediately had a conversation with Conductor Smith and had them identify the exposures associated with not following the instructions with respect to lining switches. The Conductor stated that they were aware of the instructions but said they must have had a lapse in focus.

FOLLOW UP OBSERVATIONS

When an employee demonstrates an at risk behaviour, that employee must re-observed. The time frame for the follow-up observation is part of the Terminal or Division Safety Management Plan but is normally within 7 calendar days of the Friday report on which the original at risk is shown. Check your SMS Plan. The follow-up observation does not have to be the same rule but must be relative to the work being performed at the time of the original at risk behaviour.

REPORTING DEADLINE

Managers who are required to perform observations must enter the information within 48 hrs into the system database.

GENERAL INSTRUCTIONS

Data must be entered in all fields, including name of station, mile post location, Track ID, Train ID, Engine I.D. and Number and the property type where the observation was performed i.e. CN Property, Customer, Other Railroad or Other Non-CN Location. There is a check box on the form, and the observing officer must show which type of observation was performed. There is also a check box for:

- Conventional Train
- Remote Control
- Foreign Railroad on CN Property

Accurately select one that fits the type of employee being observed.

When an RTC or Yardmaster is part of the crew being observed that employee can be added as part of the train crew and ensure to identify employee’s title for each observation. When selecting foreign railroad on CN Property, the space for the employee’s name becomes free-form, and foreign crewmember names must be entered on the test or the test is considered invalid.

There are 2 types of observations:
1) Static – This type of observation is simply observations of normal operations by the observing officer
2) Dynamic – This type of observation is set up by the observing officer. Officers must only use dynamic observations found in this manual and must not create their own simulations.

LIFE CRITICAL RULES

Life Critical Rules are demonstrated throughout an employee’s shift. They are defined as a rule or action that could lead to a life-changing event if not adhered to.

Observations that include Life Critical Rules will be marked with the following: LCR
1.0 GENERAL OBSERVATIONS (Transportation Canada)

1.1 Employees Commencing Duty

Static Observation

Purpose: To ensure that employees are reporting for duty properly prepared to commence duty.

Observation: After the crew has reported for work but prior to taking charge of a train or engine check each crew members Operating Manual / RSED to ensure it is available and contains all required current documents. Check that they have valid rule and a valid, signed Dangerous Goods Card. Observe and check their physical condition (Rule A(x) and Rule G); ensure where applicable that Operating Bulletins are read and understood (Rule 83(b)); and where required the proper DOB or TGBO.

They must also have available their PPE for use (safety glasses, proper footwear and reflective apparel) and the required current documents (the current Timetable, Regional Data, Summary Bulletin, CROR, GOI, and Dangerous Goods sections) EOM users must ensure their device is synced at the start of their shift.

At Risk Behaviours:

- No Rule card
- No TDG card or TDG card is not signed by the employee
- That they have out of date or missing sections of the Operating Manual / Have not synced their device at the start of their shift
- Have out of date or missing Summary Bulletin (not applicable for device users)
- Employees do not read the Operating Bulletins (device users must “comply” with operating bulletins)
- Employees do not have PPE
- Employees do not have correct TGBO or DOB and have not properly initialled and signed the applicable portions.

Remember: There is a Dynamic Observation for TGBO/DOB

Hint:

- Use the first page of the Summary Bulletin for all applicable sections required in the Operating Manual
- To determine if the employees have read and understood the Operating bulletins, after they have left the location, ask them what is the last bulletin posted.
- If Employee appears intoxicated do not allow the employee to work in any capacity nor leave the vicinity. Contact your immediate supervisor and CN Police.

<table>
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<tr>
<th>Rule(s):</th>
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<tbody>
<tr>
<td>CROR 2 Watches</td>
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<tr>
<td>CROR 156 and 157</td>
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<tr>
<td>GOI 8.4.3 (PPE)</td>
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<tr>
<td>CROR 83 Operating Bulletins</td>
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<tr>
<td>CROR A</td>
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<tr>
<td>CROR G</td>
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<tr>
<td>Dangerous Goods General</td>
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</tbody>
</table>
1.2 Tabular General Bulletin Order (TGBO)

Dynamic Observation

**Purpose:** To ensure that crew members confirm that they have the correct TGBO which covers the route they will be travelling on for the tour of duty.

**Description:** Arrange ahead of time with the Chief RTC for a TGBO to an on-order train to indicate an error either in routing or train designation. Crews are required to identify the error and contact the RTC before acting on the TGBO.

Observe the crew and see if they initial the incorrect route or movement designation and whether they contact the RTC as required. The Officer must take corrective action prior to the crew occupying TGBO limits if the crew does not recognize and correct the error.

**At Risk Behaviours:**
- If they initial the error (movement designation, route)
- If they do not contact the RTC
- If they obtain the incorrect DOB

<table>
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<tr>
<th>Rule(s):</th>
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<tbody>
<tr>
<td>CROR 156 Daily Operating Bulletin (DOB)</td>
</tr>
<tr>
<td>CROR 157 Tabular General Bulletin Order (TGBO)</td>
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</table>

**Remember:** The observing Officer must not leave the area and must always be in a position to stop the crew should they not identify the problem with the TGBO.

This observation can be modified by the observing officer removing one page from the TGBO and observing if the crew catches the mistake in the number of GBO's contained.
1.3 Radio Procedures

Static Observation

Description: RADIO PROCEDURES

Purpose: To ensure that Train Crews are using proper radio procedures

Procedures: Monitor radio communications between crew members or between a crew member and the RTC for an “on-balance decision” as to compliance with required rule intent.

At Risk Behaviour if train crew does not establish positive identification, uses first names or nicknames, does not use “over” nor end conversation with “out”

Critical Rules: Rule 121 – Positive Identification; Rule 120 – Radio Terms; Rule 122 – Content of Radio Communications; Rule 123 – Verification Procedures; Rule 126 – Restricted Use of Radio

<table>
<thead>
<tr>
<th>Rule(s):</th>
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<tbody>
<tr>
<td>CROR 120 Radio Terms</td>
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<tr>
<td>CROR 121 Positive Identification</td>
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<td>CROR 122 Content of Radio Communications</td>
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<tr>
<td>CROR 123 Verification Procedures</td>
</tr>
<tr>
<td>CROR 126 Restricted Use of Radio</td>
</tr>
<tr>
<td>GOI 8 12.2 Communicating by Radio</td>
</tr>
</tbody>
</table>

Remember: Failure to provide a single ‘over’ or ‘out’ should not be considered an at risk if on-balance they and other components of the required rule are otherwise fully complied with.

You must determine – did the crew establish positive identification during the initial calling procedure. Did they use the initials CN?

Remember: Review GOI 8 item 12.2, there is a difference between a train and yard switching operations. When a train movement undertakes switching such as setting off or picking up cars, “Procedures for Switching by Radio apply.

Hint: Listen to entire conversations. Was the overall context of the conversation in compliance with the radio rules and GOI Safe Work Procedures?
1.4 Safe Work Procedures

Static Observation

**Description:** GOI section 12 - Safe Work Procedures

This observation is to be used when Supervisors are undertaking normal Supervisory tasks and observes crews in normal operation.

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<th>Rule(s):</th>
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<tbody>
<tr>
<td>GOI - 8.12.1 Train Crews Conducting a Job Briefing</td>
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<td>GOI - 8.12.5 Entraining and detraining</td>
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<td>GOI - 8.12.6 Securing Equipment</td>
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<td>GOI - 8.12.7 Hand Operated Switches</td>
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<td>GOI - 8.12.8 Hand Operated Derails</td>
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<tr>
<td>GOI - 8.12.9 Crossing Between Coupled Equipment</td>
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<tr>
<td>GOI - 4.6.2 Crossing Between Rolling Stock</td>
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<tr>
<td>GOI - 4.6.3 Leaning against rail equipment is prohibited</td>
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<tr>
<td>GOI - 4.6.13 Equipment must not be moved when coupled to a locomotive.</td>
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</tbody>
</table>
1.5 Safety Walkabout/Hazard Prevention

**Static Observation**

**Description:** A Safety Walkabout is a process where one, or several supervisors/managers, monitor safety and communicate directly with employees while verifying workplace compliance to CN safety rules, procedures, safe work practices and regulatory requirements (e.g. Hazard Prevention Program, SMS, etc.) This process provides an opportunity for discussing and raising awareness of safety programs, regulatory requirements, local hazards, safety concerns, top injury/accident causes, and incidents/near misses, while obtaining employee input on safety issues and improvement opportunities. This is an important tool to enhance safety culture and compliance to rules/regulations.

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<tr>
<td>CROR – 105 Speed on Non-Main Track</td>
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<td>CROR - 110 Inspecting Passing Trains and Transfers</td>
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<tr>
<td>CROR - 111 Train and transfer inspection</td>
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<td>CROR - 112 Securing Equipment</td>
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<td>CROR - 113 Coupling to Equipment</td>
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<td>CROR - 114 Fouling Other Tracks</td>
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<td>CROR - 115 Shoving Equipment</td>
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<td>CROR - 123.2 Switching by Radio</td>
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<td>CROR - 13 Engine Bell</td>
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<tr>
<td>CROR - 14 Engine Whistle Signals</td>
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<tr>
<td>CROR - 156 Daily Operating Bulletin (DOB)</td>
</tr>
<tr>
<td>CROR - 157 Tabular General Bulletin Order (TGBO)</td>
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<td>CROR - 17 Headlight</td>
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<td>CROR - 42 Planned Protection</td>
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<tr>
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<tr>
<td>CROR - 83 Operating Bulletins</td>
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<tr>
<td>CROR - A General Rules – A</td>
</tr>
<tr>
<td>CROR - C General Rules - C (Safety)</td>
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</table>
### 1.6 General Observation

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<th>Rule(s):</th>
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<tbody>
<tr>
<td>CROR - 105 Speed on Non-Main Track</td>
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<td>CROR - 110 Inspecting Passing Trains and Transfers</td>
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<tr>
<td>CROR - 111 Train and transfer inspection</td>
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<tr>
<td>CROR - 112 Securing Equipment</td>
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<tr>
<td>CROR - 113 Coupling to Equipment</td>
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<tr>
<td>CROR - 13 Engine Bell</td>
</tr>
<tr>
<td>CROR - 14 Engine Whistle Signals</td>
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<tr>
<td>CROR – 33 Speed Compliance</td>
</tr>
<tr>
<td>CROR - 156 Daily Operating Bulletin (DOB)</td>
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<tr>
<td>CROR - 157 Tabular General Bulletin Order (TGBO)</td>
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<td>CROR - General Rules - C (Safety)</td>
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<td>CROR - General Rules - G (Intoxication or Impairment)</td>
</tr>
<tr>
<td>GOI 8.4.3 Personal Protective Equipment</td>
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</tbody>
</table>
1.7 Peer to Peer Communication

Static Observation

Purpose: The purpose of this observation is to ensure employees are engaged in the same task, perform the required communications with each other before the task is started, and anytime the task has been changed. There is also another element added to this observation specific to Trainee Daily Report and Trainer completing the Trainee Evaluation.

Preparations/Conditions: This observation may be performed by the observing officer monitoring radio communication when the crew members are not in the same location, and it may also be performed when the observing officer is riding with the crew to ensure that Peer-to-Peer Communications are being conducted; so that all crew members understand the movements to be made, the protection to be provided, the method of communication that will be used, and follow-up discussions between the crew members when the conditions are going to change.

Procedure: The observing officer will be in position to see the movement being made, either watching from a location that is not visible to the crew or when riding with the crew. Listen to make sure the crew members do the following:

The following tasks MUST be communicated between crew members. A description of how this communication is to take place can be found in Special Instructions:

• Job briefings
• Content of TBGO/DOB
• Radio testing
• Going in between equipment
• Advance warning of restrictions
• Calling out signals
• Type of protection or authority required
• Speed
• Position of non-main track switches
• Position of derails
• Shoving movements
• Position of main track switches
• Number of handbrakes applied
• Method of communication used
• Transfer between crews
• Repeating instructions and authorities
• Securing dp remote units - switching

Remember: The communication may be done face to face or over the radio. If unable to hear the communication, board the train and interview the crew members individually to compare what communication, if any, took place. Other observations within this manual may have Peer to Peer requirements that are specific to the task that are being performed (tested). When entering into the system, provide details of which task crew did not correctly communicate between one another.

At Risk Behaviour: Anytime that a required communication between the crew members is not performed, the observation must be recorded as an at risk behaviour. If confirmation from the other crew member is required, and the other crew member does not confirm, it must be recorded as an at risk behaviour.

Trainee Element:

• Trainee must provide Daily Report to Trainer at start of shift.
• Trainer must complete the Evaluation Form prior to completion of shift.

Remember: The Trainee Report and Evaluation Form portion of the observation is non-critical but serves as an opportunity to document and perform queries.
At Risk Behaviour: If the Trainee does not provide the Trainer a copy of his “Daily Report” at the start of shift, the Trainee should show as an at risk. If the Trainer does not ask for this “Daily Report”, they will also show as at risk. If the Trainer does not complete the “Trainee evaluation in the computer prior to the completion of the shift (prior to leaving work), the Trainer will show as at risk.

GOI 8 Item 8.3.1 b) Responsibility for Safety/Continuous Monitoring: Employees assigned a trainee must be in a position which provides continuous monitoring of the trainee and allows for immediate intervention and corrective action of any non-compliant or unsafe activities observed. This element of the observation can be subjective so the Officer needs to be certain the trainee is not being continuously monitored.

<table>
<thead>
<tr>
<th>Rule(s):</th>
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<tbody>
<tr>
<td>GOI 8 Item 12.15 Peer to Peer Comm.</td>
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<tr>
<td>CROR 106 Crew Responsibilities: Peer to Peer Comm.</td>
</tr>
<tr>
<td>Trainee Report Produced</td>
</tr>
<tr>
<td>Trainee Evaluation Form Completed</td>
</tr>
</tbody>
</table>
1.8 Personal Communication Devices

Dynamic Observation

**Purpose:** To monitor operating crew compliance with respect to the unauthorized usage of personal communication devices while on duty.

**Protocol:** There are 3 scenarios which can be used to verify if operating crew(s) are using personal communication devices while on duty without prior authorization by a company supervisor.

1) The Observing Officer asks crew member(s) if they have a cellular device. If the response is yes and the device is either on their person or in their work bag or grip and not powered off, they have demonstrated an at risk behaviour. The Officer can verify compliance if the crew responds no, by calling the crew member(s) cellular contact number(s) and listen for an audible alert.

2) The Observing Officer boards locomotive and starts to perform a check of crew member(s) operating manuals (RSED). A second Officer (from another location) attempts to contact the crew member(s) by calling their cellular contact number(s). The cellular contact numbers may be obtained though the CMC Supervisor.

3) The Observing Officer boards locomotive and arranges ahead of time for the CMC Supervisor to attempt calling the crew member(s) cellular contact number.

**At Risk Behaviour:** Crew member(s) cellular device provides an audible alert that can be heard by the Observing Officer verifying the cellular device has not been turned off in accordance with General Rule A (xi, xii).

OR;

Crew have on their person, a cellular device whether turned on or not or the cellular device is in their work bag or grip and is not powered off.

**Hint:** Prior to the observation, check with Local Supervisor to determine if assignment has been authorized to use cellular device.

**Remember:** Do not use the CMC Crew Caller to participate in this observation, only the CMC Supervisor or another Officer may be used. If crew member indicates the cellular device is required due to family matters in the event of emergency, direct them to the 24/7 CMC contact number specifically designed for family emergencies (1-866-761-0357).

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<tr>
<th>Rule(s):</th>
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<tr>
<td>CROR – General Rule A (xi)</td>
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<td>CROR – General Rule A (xii)</td>
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</table>
1.9 Prevention of Slips, Trips and Falls

Static Observation

**Purpose:** To ensure employee is taking appropriate action to prevent personal injury while working.

The highest occurrence of injuries for all functions in CN is associated with slips / trips / falls. The following process has been developed to reduce the risk of injuries resulting from slips / trips / falls. All employees must comply with this process:

1) **OBSERVE** your surroundings and take appropriate action to avoid potential hazards such as slippery conditions, uneven ground, tripping hazards etc.

2) **LOOK** in the direction you are walking

3) **FOCUS** on walking, and do not allow distractions (eg. Do not read switch lists while walking other than a brief glance while switching - adjusting equipment / tools etc.)

4) **PACE** needs to be at a safe rate, smaller steps may be required when conditions warrant. Never run unless it is an emergency.

5) **PPE** wear approved anti-slip footwear when slippery conditions exist and ensure boots are in good condition and laced to the top.

6) **HANDS must be out of pockets** when walking to allow for balance and recovery

7) **SUITABLE LIGHT SOURCE** to be used when conditions are less than ideal to allow visibility, ensuring that your walking surface is illuminated.

8) **DO NOT CREATE UNECESSARY TRIPPING HAZARDS** with equipment, materials and tools

9) **PEER to PEER** communication must be used regularly with co-workers to remind them of these safety requirements and advise peers of hazardous conditions immediately

10) **NOTIFY** supervisor of hazardous conditions that require remediation

**Protocol:** Observe crew performing any of the above Items. This observation may be conducted while not visible or when train riding.

**At Risk Behaviour:** If employee(s) are not complying with any one of the 10 listed items, it will result in an at risk behaviour GOI 8 Item 4.11.

**Remember:** Some items may be very subjective such as Pace and Focus, so if in doubt as to whether employee was safe or at risk, the Observing Officer should question the employee to determine appropriate response. If still unable to determine if employee was safe, the observation should not be entered. This should however, be entered into PAP as a coaching session on particular items discussed.

If employee did not report a hazardous condition, the Observing Officer must ensure the condition is taken care of immediately.

In all cases it is very important that employee is properly coached on any items found to be at risk prior to continuing work.

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<tr>
<td>GOI 8 Item 4.11</td>
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</table>
1.10 Riding/Entraining/Detraining

**Static Observation**

**Purpose:** This observation determines if employee demonstrates a safe behaviour when entraining / detraining or riding equipment outlined in the General Operating Instructions.

**Preparation / Conditions:** These observations can be conducted at any location employee’s duties require them to entrain/detrain or ride on equipment.

**Procedure:**

Riding Equipment: The Observing Officer will watch employees to ensure they safely ride various types of equipment as indicated below:

- Does not ride on side, top or end of equipment in any main shop, car shop or diesel shop tracks. This includes footboards or locomotives and applies on all shop tracks inside and outside building facilities
- Unless it is the trailing car in a movement or trailing end of the last locomotive in a consist, ride the side ladder on the leading end of equipment in the direction of travel
- Continuously maintains firm grip on handholds
- Is aware of and protects themselves against sudden movement or slack action
- Looks in the direction of travel
- Aware of and reacts to restricted clearances
- Ride the side which provides best escape route
- Does not ride on the roof of equipment
- Does not ride the end ladder or crossover
- Does not ride any higher up the side ladder than required
- Does not ride on the service ladder located in the middle of a tank car
- Does not ride on side of 2 axle scale test car
- Does not ride on any moving car while inside any building
- Does not ride inside a gondola car
- Does not ride in the end cage of a hopper
- Does not ride on the end deck of a flat car or on the lading of any car. Does not use the lading of a loaded flat car as a handhold
- Does not ride the side of moving engine or car when passing side and/or overhead clearances
- Rides tank car with both feet in stirrup and 1 arm firmly holding or wrapped around the vertical hand rail or, rides the trailing platform of the trailing car in a position where both feet are positioned on the outermost area of the platform outside the rail and pointing to the inside and 1 arm is firmly wrapped around the hand rail pulling their body tightly up against it. In both cases, the other hand must be used to grip the handrail when not required to operate belt pack, communicate on the radio or give hand signals. Staggered riding position is also permitted
- Does not cross over the end platform unless movement is stopped and will remain stopped

Observing officer will watch employees entraining and detraining to ensure employee complies with the following step by step procedures:

When entraining or detraining from stationary equipment the following must be adhered to if applicable:

- Ensure traction for footing is safe. Visually select a safe area to entrain /detrain, confirm ground conditions are safe as you get closer where the activity will occur.
- Whenever possible, entrain and detrain on operator’s side.
• Handrails or grab irons and stirrups or steps are present and provide room for both hands and are in good condition.

• Be aware of slack action and sloshing from tank cars prior to entraining or detraining stationary equipment.

When entraining/detraining stationary equipment, employees must face the equipment and pay particular attention to securely grasping the handrails and firmly positioning one foot on the step/stirrup followed by the other foot and not release the handrails when detraining until both feet are planted firmly on the ground. Observing Officer will observe employees entraining and detraining to ensure the employee complies with the following factors:

Entraining/Detraining critical factors:

• Do not entrain/detrain from moving equipment
• Maintain firm grip/proper footing
• Traction for footing is safe
• Hands are free of extra equipment such as grips, bags, SBU, tools, water etc.
• Entrain/detrain on operator side (when possible)
• Looks in direction of travel when detraining and observes ground conditions
• Observe stirrup or step is in good condition prior to entraining
• Does not entrain/detrain by other means other than
  • steps, ladders or handholds
  • Does not entrain/detrain from or to platforms, ramps, docks or other high points
  • Unless it the trailing car in a movement, does not ride trailing end of equipment
  • Grasps handrails with both hands
  • Is vigilant for slack action
  • Alert for equipment on adjacent track, restricted clearances, switch stands or other obstructions

At Risk Behaviour: The observation result will be considered at risk if employee does not follow the safe work procedures for each task as outlined above:

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<tbody>
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<td>GOI 8 Item 12.4 Riding Equipment</td>
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<td>GOI 8 Item 12.5 Entraining and Detraining</td>
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2.0 YARD/SWITCHING OBSERVATIONS

2.1 Coupling to Equipment

Dynamic Observation
Observe train or yard crew in the active process of coupling to equipment and ensure all coupling requirements as outlined in CROR 113, GOI Item 3.5 and GOI Section 8 item 12.10 are complied with.

Particular attention should be given to ensuring:

• precautions are taken to prevent the equipment from moving unintentionally prior to coupling
• At least 1 knuckle is open
• Couplers are aligned to prevent by-pass couplers
• Coupling speed complies with GOI 3.5, and in no case to exceed 4 mph
• On other than tangent track, a stop must be made 6 to 12 feet while ensuring proper alignment prior to coupling as per CROR 113 (g)
• Coupling must be stretched to ensure it is secure
• Unless required for loading or unloading purposes, equipment must be left a minimum of 25 feet from the end of track, stop block or other device used to indicate the end of track. When equipment must be left within this 25 feet restricted area, a stop must be made 25 feet from end of track. GOI 8 12.10

Critical Rules: CROR 113 – Coupling to Equipment; GOI Item 3.5 – Coupling and Switching; GOI Section 8 item 12.10

Dynamic Observation Rule CROR 113(a): Observe a crew that is shoving cars down a track with the intent to couple onto equipment further down the track. Contact the crew member controlling the movement and ask him to bring the movement to a safe stop. Ask this employee one of the following questions:

1) Have the cars that are further up the track been properly secured before you couple on to them, what precautions are being taken to prevent them from moving unintentionally?

CORRECT ANSWER: The equipment has been checked and is properly secured. There are a number of ways in which equipment can be secured or the correct precautions taken. It is up to the Observing Officer to determine if the employee did ensure the proper precautions were taken.

Methods of ensuring cars are secured:

1) Handbrakes applied or,
2) Pistons are out or,
3) Wheels are chocked or,
4) No handbrake zone or,
5) Large cut of cars on level track.

If employee cannot provide an answer that demonstrates that they have positively protected against this situation, the observation must be considered as an at risk behavior.

Dynamic Point: Crew must know that the equipment being coupled to has been properly secured.

Dynamic GOI 3.5 Coupling and switching:
Observe a crew shoving down a track and has to couple onto a car located on non-tangent track.

Prior to coupling, stop the crew and ask the following questions:

Do you have to stop prior to coupling on?

CORRECT ANSWER: yes between 6 and 12 feet

After stopping at what speed can you couple on?

CORRECT ANSWER: 1 mile per hour.

If the drawbar needs to be aligned how do you accomplish this?
CORRECT ANSWER: Stretch to ensure there is a minimum 50 feet separation, align drawbar. Make another stop 6 to 12 feet, couple equipment.

Unless required for loading or unloading purposes, how far from the end of track must equipment be spotted?

CORRECT ANSWER: 25 feet.

Dynamic Point: Crew must know that coupling to equipment on a curve must be done with caution.

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<td>CROR 113 Coupling to Equipment</td>
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<tr>
<td>GOI 3.5 Coupling and Switching</td>
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<td>GOI 8.12.11 Coupling and Uncoupling Air Hoses</td>
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<td>GOI 8.12.12 Aligning Drawbars</td>
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<tr>
<td>GOI 8.4.6.13 Working on equipment attached to a locomotive</td>
</tr>
</tbody>
</table>

Remember: If a locomotive is to be coupled onto a large cut of cars there may be no need to apply hand brakes prior to coupling on.

If a crew has to re-align a coupler, they must separate the equipment by no less than 50 feet before going between to align the coupler.

Do not misalign a coupler to set up an observation.

The observation must be documented as an at risk behavior if coupling is not tested by a stretch caused by a mechanical means (no slack action stretch)

If a locomotive consist with more than three locomotives is coupling to equipment the coupling speed is 1 mile per hour.
2.2 Derails

**Dynamic Observation**

**Purpose:** To ensure that employees are aware of the location of derails and incorporate the appropriate Peer to Peer communications when removing and restoring a derail.

**Procedure:** In preparation, the Observing Officer removes the lock from a derail on an industry track or temporarily replaces it with a defective lock for the purposes of the observation. The officer always remains in close proximity to protect against any trespasser/vandalism activity. Prior to movement arriving, measure off 25 feet from the derail to make reference to where the stop is made. Listen for Peer to Peer communication and observe if the employee removing or restoring the derail communicates the change in derail status from the location of the derail.

Once work is complete and the last car clears the derail, the derail must immediately be restored and locked in the derailing position. Prior to employees/movement departing from the location, the employee(s) must report to the proper authority (RTC, Supervisor, Yardmaster), the missing or broken lock.

**Dynamic Point:** The Dynamic element of this observation involves the Observing Officer removing the lock from a derail to determine employee(s) adherence to the rules by reporting and protecting the absence of the required lock prior to leaving the location of the derail.

Other rules and procedures that should be included in this observation:

- CROR 104.5 - Stopping 25 feet from a derail set in the derailing position
- GOI 8, 12.15 (11) – Reporting change in status derail from location of derail (Peer to Peer Communication)
- Restoring the derail immediately after work has been completed and the last piece of equipment has cleared the derail
- GOI 8, 12.8 Ergonomic methods of properly removing and restoring a derail.

**At Risk Behaviour Defined:**

- Movement comes to within 25 feet of a derail set in the derailing position.
- Employee does not communicate status of the derail from the derail location.
- Peer to Peer Communications as outlined in GOI 8, 12.15 are not adhered to.
- Employee(s) do not report the missing or defective lock to the proper authority prior to leaving the location or the derail.
- Employee(s) leave cars in the track without a lock or a defective lock on derail.
- Derail is not immediately restored after work has been completed and the last piece of equipment has cleared the derail.

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<tr>
<th>Rule(s):</th>
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<tbody>
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<tr>
<td>GOI 12.15 (11) Peer to Peer Communication</td>
</tr>
<tr>
<td>GOI 8 12.8 Hand – Operated Derails</td>
</tr>
</tbody>
</table>
2.3 Hand Operated Switches Non-Main Track

Dynamic Observation

**Purpose:** To determine that employees understand the proper manner in which to operate a switch.

**Observation 1.** While observing a crew handling hand operated switches in a yard or on other non-main track, ensure that the switch points, target and route are observed after being turned, that the switch is secured with the keeper or lock and not left dangling. In the case of a switch equipped with a lock, unless specific local instruction (SI) indicates otherwise, the switch after being used must be returned to normal position and locked.

**Observation 2.** Another option for this observation would involve having the switch keeper/lock removed from the switch under the supervision of the Observing Officer and ensure employee reports or corrects the defect as required. Leaving the keeper/lock on the ground adjacent to the switch stand would create a situation requiring employee intervention but should only be done when a trailing point move through the switch and a requirement to turn the switch is present (not a semi-automatic switch).

**At Risk Behaviour Defined:** The employee does not correct the defect and/or does not look at the points, target, and route after turning the switch. The employee does not use proper body mechanics as outlined in GOI 12.7.

**Note:** The Observing Officer can verify if these checks have been done by confirming that the employee who lined the switch performed “Point and Call.”

**Remember:** Upon approaching the switch, a general visual inspection of the switch components is to be made to ensure obstructions which may render the switch inoperative are not present. This may not require the employee to cross the track to track.

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<th>Rule(s):</th>
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<tr>
<td>CROR 104 Hand Operated Switches</td>
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<td>GOI 8 12.7 Hand-Operated Switches</td>
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2.4 Shoving Equipment

Dynamic Observation

Purpose: To ensure that employees understand the required protection and the restrictions when shoving cars into a track.

Observe movement shoving equipment into a track and coupling to other equipment in the track in a situation where the entire track, after coupling, will be shoved into the clear. Prior to commencing the move onto the track, the crew must have a job briefing. It must be determined who will be protecting the point, what type of point protection will be used.

Ensure that a crew member is on the leading car or on the ground in a position to observe the track to be occupied. If not so governed, another rules qualified employee must be protecting the move, or the track MUST be known to be clear and have sufficient room to contain the cut of cars being shoved. This can only be determined by a qualified employee (ie. Yardmaster by use of a camera can see the track to be used and remains in constant contact with the employee controlling the shove), as per CROR 115(b) or a positive form of protection is applied for the track to be used, such as Point Protection Zone (PPZ), Protection Zone (PZ) or RTC Protection (Main Track authority or Siding Control Territory)

At Risk Behaviour: If not absolutely protected as per the above.

Situation 1: Rules CROR 115 and CROR 105. Observe a crew that is shoving cars down a track without a crew member on the leading end or in position to see the full route to be used. Contact the crew member controlling the movement and ask them to bring the movement to a safe stop. Ask the employee one of the following questions:

How will you ensure that there is no Rule 41 red signals between the rail further down the track you are shoving?

CORRECT ANSWER: The track will be observed during the shove…

Have you checked to see if there is any equipment further up the track?

CORRECT ANSWER: The track will be observed and there is no other equipment on the track

How much room is in this track that you are shoving into?

CORRECT ANSWER: The track to be shoved into will be observed for the room required. We are shoving 20 cars into the track.

If employee cannot provide an answer that demonstrates that he/she has positively protected against all these situations, the observation must be shown as an at risk behaviour.

DYNAMIC POINT:

Crew must know that the route is seen or known to be clear.

Situation 2: Observing Rules CROR 115 and CROR 105c

Observe a crew that is shoving cars down a track without an employee on the leading end or in position to see the track to be used. Contact the crew member controlling the movement and ask him to bring the movement to a safe stop. Ask this employee one of the following questions:

Is rule 105 (c) applicable on this track? If it is, what else besides equipment must you stop within 1/2 the range of vision of?

CORRECT ANSWER: A track unit.

Is rule 105 (c) applicable on this track? If it is, how did the crew determine that there is no possibility that a track unit can “put on” in the track that they are shoving into.

CORRECT ANSWER: There are no crossings or access for a highrail truck to get to this track to “put on”

At Risk Behaviour: employee cannot provide an answer that demonstrates that they have positively protected against all these situations.

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**NOTE:** This observation could be applied to any movement shoving equipment which is not protected by an employee riding on the leading car by means of personal observation of the move and questioning of the crew as to how protection was being provided. Failure to describe absolute positive protection as contemplated by this rule would constitute an at risk behaviour.

**Hint:** When movement is being shoved, stand with the employee protecting the move. The observation should not be done if there is equipment or other obstruction or red flag protection on the track. Only do the observation when the car lengths are of a sufficient length that the Officer or employee controlling the move can initiate a stop transmission without forcing the use of the emergency brake application.

**Remember:** If this observation is being conducted on a track with a crossing all rules pertaining to shoving over a crossing apply and are critical. Red Flag/Light observation can also be applied.
2.5 Red Flag Observation - Rule 41/105

**Dynamic Observation**

**Purpose:** To observe the proper application of employees moving equipment on Non-Main Track territory with respect to CROR 41/841.

**Observation:** Ensure that Rule 841/41 is applicable at the location to be observed. This information may be found in time tables, terminal/yard operating manuals and/or special instruction governing that location and will automatically be in effect unless such documents state that they are not in effect. Place a red flag (standard CN) elevated between the rails. If observing at night, in addition to the red flag, a red light must also be used. These red signals must be placed where an approaching movement will have a clear view of them from 300 yards. The officer performing the observation must remain in position to monitor the red flag and any movement approaching it.

**Safe Behaviour** - A movement approaching the signal must come to a complete stop before the red flag using normal brake applications and must not proceed until the signal has been removed by the employee placing the signal.

**At Risk Behaviour** - If the movement cannot stop before the signal (runs it over) or does not stop at all.

**Note:** If the movement must use an emergency application of the air brakes, the Observing Officer must ascertain directly from the crew member controlling the movement and well as other crew members present, why they were unable to stop using normal brake applications.

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**Remember:** Subdivision Track is non-main track. Unless otherwise stated in Time Table footnotes, CROR 41, reduced speed is applicable on Subdivision track.

Reduced speed indicates stopping within one-half the range of vision of equipment, but the requirements of CROR 41 state stopping before passing the red flag.

When placing a red flag and if necessary light, place them as an Engineering employee would. Review Rule 841.
2.6 Fouling Other Tracks

**Dynamic Observation**

**Purpose:** To ensure that employees are aware of rules and restrictions of moving into the fouling zone of another track. (Rule 114)

**Description:** SEMI-AUTOMATIC SWITCHES

Observe crew operating over automatic switches and ensure that crew is in position to observe conflicting route when trailing through a switch in reverse position.

**Observation:** Line a lead switch against the return movement of the engine from a track on which sight lines for the lead are blocked by cars on adjacent track(s). In such case the crew must take necessary precaution to ensure the conflicting route is clear before occupying the lead.

**At Risk Behaviour:** Movement fails to stop prior to fouling the lead or no employee in position to observe the switch.

**Critical Rules:** Rule 104.4 Semi-Automatic Switches; Rule 114 Fouling Other Tracks

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**Remember:** During winter conditions watch for requirement to handle semi-automatic switches manually when ice or snow may affect security of switch points. During winter conditions watch for local instructions that require all semi-automatic switches to be lined manually. Some locations retain these restrictions outside of winter conditions.

The observing officer must remain in position to observe the movement and to ensure that the movement will not run foul of a conflicting movement. Observing officer must have radio communication available to stop the movement.
2.7 Shoving Movements or Movements Headed by an Unmanned Remote Control Locomotive/Switching by Radio

**Dynamic Observation**

**Description:** SWITCHING BY RADIO

**Purpose:** To ensure employees understand and apply rules for controlling a shoving movement and should anything happen such as radio failure or cessation of point protection. The movement will be brought to a stop after travelling half the distance specified by the last radio instruction.

**The Observing Officer takes control of a shoving movement after the employee controlling the move has transmitted a distance to travel.**

The crew must have a job briefing prior to the shove move during which they will determine; how the move will be protected, who is protecting the move.

The officer will observe the shoving move and monitor radio communication ensuring that direction of movement is indicated in the initial instruction and that a distance to travel is provided with each transmission.

Ensure proper initial identification (Rule 121(a)) is achieved and that the instructions are continuously repeated to the sender (Rule 123(c)).

**Dynamic Observation:** After the person controlling the shoving movement gives a car count/distance to travel the Observing Officer intervenes by requesting that the employee hand over the radio. The Observing Officer will not transmit any further distances and will monitor the movement to ensure that the employee operating the locomotive begins to stop after travelling one half the distance given in the last radio transmission.

Prior to taking the radio the Observing Officer must clearly communicate to the employee that a safety observation is being conducted and the officer will be taking control of the movement.

The Officer must also ensure the employee understands that should the movement not initiate a stop, the observing officer will, through radio communication, instruct the movement to stop.

**Dynamic Point:** When the movement has travelled one-half the distance required by the last instruction and no further communication is received, the movement must commence stopping.

**At Risk Behaviour Defined:** Employee operating the locomotive does not commence stopping after travelling half the distance transmitted in the previous radio communication. Failure to provide direction, distance to travel or confirmation of instructions received will also constitute an at risk behaviour.

**Risk Assessment:** The Observing Officer must remain in position to observe the movement at all times during the observation. The Observing Officer must ensure that there is sufficient room for the movement to stop should the employee operating the locomotive not comply with the requirements of this rule. This observation must not be conducted when the last transmission is less than 15 car lengths. The Observing Officer must be prepared to transmit a stop directive should the movement not initiate a stop after having travelled half the distance of the last transmission.

**Remember:** Half the distance travelled can be subjective. Allow some leeway on when the movement should commence stopping. Each situation will dictate how much leeway is given by the Observing Officer, but this distance will become shorter as the distance transmitted in the last transmission decreases.

If the employee operating the locomotive calls prior to travelling the required distance and asks if there are further instructions or car counts the Observing Officer must make a decision. By calling, the employee operating the locomotive has shown that they are paying attention and looking for further instruction. The Officer can show a successful safety observation at that point OR remain silent and observe the reaction of the employee operating the locomotive.

**Note:** The employee controlling the movement cannot refuse to turn over the radio. If the employee does refuse, ensure the employee has been advised that the Observing Officer is taking control. Also the employee watching the shove move cannot advise the employee operating the locomotive that the observation is being conducted prior to turning over the radio.
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<td>CROR - 123.2 Switching by Radio</td>
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2.8 Non-Main Track Crossover

**Dynamic Observation**

**Purpose:** To prevent equipment from being lined into the foul zone of another track.

**Observation:** Observing Officer must remain in area and have continual visual contact of the non-main track crossover.

**Procedure:** The Observing Officer will align a non-main track crossover away from the desired route of an oncoming movement.

**At Risk Behaviour:** If the crew on the movement:

1) Fails to first normal/reverse the switch on the track which the movement is standing.
2) Fails to normal/reverse the switch at the opposite end of the crossover before passing the first switch.

All switch related rules apply.

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2.9 Stopped By Red Flag/Light – Reduced Speed, Non-Main Track
CROR 105 Territory

Dynamic Observation

Purpose: To ensure that employee controlling movement understands and complies with CROR Reduced Speed in non-main track

Description: STOPPED BY RED FLAG/RED SIGNAL REDUCED SPEED

Tools Required: Standard Red Flag mounted on steel post. Red Light or Flashing Red Light. This observation is to be conducted on movements operating at REDUCED SPEED on Non-Main Track.

Observation: Place a red flag or red light at night on the track (between the rails) for an approaching movement. The movement must stop in a controlled manner prior to the location of the flag and not proceed beyond the location of the flag until the flag has been removed and instructed to do so by the officer conducting the observation.

Remember:

1) The track to be used for the observation has to meet the following specifications: must be non-main track
   • reduced speed must be applicable on the track AT the time of the test
   • must not be a track in a Point Protection Zone (PPZ) or where other exclusive track usage may be granted
   • must not be a track where an emergency application could result in a derailment or block a public crossing at grade

2) A standard red flag (CN stock) must be used.

3) A Red Light must be used during periods when day signals cannot be plainly seen.

4) The rule states that the movement must be able to stop within one-half the range of vision, therefore movement must stop well back from flag.

5) Flag must be placed in a location between the rails where employee controlling movement has unobstructed view.

6) If you have access to a speed detector (radar/Laser) gun the maximum speed is 15 mph in non-main track unless otherwise specified.

7) If movement is a shoving move, shoving movement test 17 and Is also applicable

8) The movement must stop before any portion of the movement passes over the flag/light and remain stopped until the flag is removed and instructed to proceed by the officer conducting the test.

NOTE: the timing of displaying the red flag/light is critical. The observing officer must know at what point the movement will first be able to see the red flag/light and therefore must NOT display the flag AFTER the movement is by that point.

At Risk Behaviour:
The following will be considered as at risk behaviours:

• movement does not stop; or
• movement is not able to stop before moving over flag; or
• movement stops as the result of a crew initiated emergency brake application.

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**Hint:**

- Take up a position where you are near the red flag/light.
- Have a metal post attached to flag so that red light with magnet can be attached.
- Acklands Granger sells flashing red LED Lights with a magnetic clip
- Engineering Department can make up a flag with an angle flag post which attaches directly to the rail
- Flashing red light is acceptable.
- Have Radio shop supply an EOT/SBU carcass and then have mechanical department make a stand and apply a metallic face plate so that flashing red light may be attached.
2.10 Flashing Red Light/SBU Observation – Rule 105

**Dynamic Observation**

**Purpose:** To observe proper application of employees moving equipment at reduced speed:

**Reduced Speed**

A speed that will permit stopping within one-half the range of vision of equipment

**Observation Procedure:** On a track on which Reduced Speed is applicable, arrange to place a fusee OR a flashing red light affixed to a SBU/EOT and mounted between the rails.

**At Risk behaviour** movement does not come to a controlled stop prior to passing the fusee or light.

**Note:** If the movement must use an emergency application of the air brakes, the observing officer must ascertain directly from the crew member controlling the movement as well as other crew members present, why they were unable to stop using normal brake applications. This could lead to coaching opportunities for violations of reduced speed, exceeding the posted speed limit, Rule 34 - communication within the cab, etc.

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**Note:** This observation is not to be used when a movement is operating on a “reduced speed” pass stop authority.

Rule 11 allows for the use of a fusee burning on the track on which the movement is operating.

Note: Due to reduced visibility of fusees during daylight conditions, Fusees MUST ONLY BE USED AT NIGHT.

**Risk Assessment**

Do not place a fusee on a public crossing at grade or where it will cause a fire. Ensure that there is no material that will catch on fire and ensure that the fusee is completely extinguished prior to leaving the observation area.
2.11 Yard Assignment Riding

Static Observation

**Description:** The Observing Officer will operate a minimum of 2 hrs with crew, evaluating compliance with all CROR and Special Instruction issues encountered during that period. Officer must be familiar with the Terminal Operating Manual (if applicable) and territory over which the crew will be operating, including industry specifics. Officer should not initiate compliance requirements, but note employee commitment and coach/mentor where required.

**Equipment Required:** PPE/Operating Manual(s) or RSED/Portable radio/DOB/Switch Keys

**Observation Application:**
- Introduce yourself and explain audit process;
- Participate in Job Briefing/Check Operating Manual or RSED, Bulletins and DOB
- Ensure proper LCS test was conducted including walk around inspection of locomotive
- Ensure applicable permission has been granted to move from one area of yard to another
- Audit adherence to proper radio procedures
- Monitor train handling techniques
- Ensure locomotive and/or OCU’s are secured when unattended

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2.12 Kicking Cars

**Static Observation**

**Purpose:** To ensure that employees understand the dynamics of safely kicking cars ensuring that the coupling speed is at 4 mph or less, the employee did not run and that drawbars remain aligned thus preventing a future derailment caused by crossed drawbars.

Switching cars by allowing them to move under their own momentum or "Kicking cars" is a task, which requires an employee's full concentration. It involves a high skill level, which demands focus, and the ability to compensate for changing conditions. The observing officer(s) must be in a position to view all actions performed by the crew members - from start to finish.

**Equipment Required** PPE/Operating Manual(s) or RSED/Portable radio/Radar or Lidar gun/Switch Keys

**Ensure employee:**

- Conducts a job briefing covering destination of cars, distance to travel, which will operate switches, handle the operating lever, etc.
- Checks ground conditions to ensure they are clear of obstructions and will provide a firm footing.
- Who will handle operating lever is using an unencumbered hand (free of radio, switch list, hand lamp, etc); is facing the direction of movement and not exceeding 4 mph (walking speed)
- Utilizes proper radio procedures
- Has secured the track or equipment to be coupled to prevent roll outs
- Knows where any coupling will take place to prevent coupling on a curve resulting in crossed or by-passed couplers
- Does not allow kicked equipment to exceed coupling speed of 4 mph.
- Operating Lever is lifted and separation occurs while car is on straight/tangent track.
- Employee observes drawbar after separation to ensure that the drawbar remains aligned.
- All rules associated with handling of switches are still applicable.
- Minimum handbrakes as per GOI 8 12.19 are applied prior to kicking into a track
- No more than 5 cars are kicked at a single time (may be restricted by local instruction)
- On subdivisions, kicking is only permitted at locations in the subdivision footnotes
- At locations where terminal manuals are in effect, special instructions will indicated where kicking is restricted or prohibited

**At Risk Behaviour:**

- Employee runs while lifting the operating lever
- Employee kicks car (realeases) from non-tangent track
- Employee uses their foot to life the operating lever
- Employee kicks uphill
- Employee kicks where prohibited

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**Hint 1:** When crew places a car into a track and applies handbrakes, the car must be placed far enough into the track to be clear of the clearance point with other tracks and to be far enough in to allow all other cars destined to that track to fit.

**Hint 2:** Review special instructions (terminal manuals or subdivision footnotes) to see if there are restrictions in addition to those listed in Rule 113.4 and GOI 8 12.19
2.13 Securing Equipment

Static Observation

**Purpose:** To ensure crews understand how to properly SECURE EQUIPMENT

1) Crew conducts a job briefing in which all crew members are made aware of the number of cars, the minimum number of handbrakes required and on which end of the cut they are to be applied (low end of track when practicable). Also if there are any special conditions (weather, car type, etc., that may require more handbrakes applied).

2) Ensure that brake pistons on cars to which handbrakes are to be applied are released;

3) Ensure the handbrake effectiveness test performed, and verify that the required number of cars, as stipulated by the minimum Handbrake Chart or other Special Instruction for the location, are secured with handbrakes

4) Additionally when a locomotive is cut off from cars with air throughout, the brake pipe on the cars left must be vented to atmosphere and the angle cock left fully opened.

5) Upon completion the Engineer is to confirm with the Conductor on the number of handbrakes applied and that it was a successful handbrake effectiveness test. This must be done before departing the location. (It can be done by either radio or personal contact.)

**At Risk Behaviour:** Crew does not perform the handbrake effectiveness test, does not apply the required number of handbrakes or does not comply with GOI 7.4.

**NOTE:** This observation also applies to unattended locomotives (CN 8960) and in addition doors and windows must be locked, reverser removed, and other requirements of Locomotive Engineers Manual Section B3.3 complied with.

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**Remember:**

- Review Terminal manuals and timetables to determine if there are any special instructions on the number of handbrakes required.
2.14 Shoving Equipment or Movements Headed by Unmanned Remote Controlled Engine

Static Test

**Purpose:** To ensure employees are protecting the shoving movement or pulling movement (if in RCL operation) while switching.

**Observation:** The observing officer verifies that the shove is being protected as per CROR 115.

The operating crew must be able to comply with at least one of the following:

- Be on the leading piece of equipment
- Be on the ground, in a position to see the track to be used
- Another qualified employee who can observe the track and has radio contact with the employee controlling the movement.
- A positive form of protection is applied for the track to be used, such as Point Protection Zone (PPZ), Protection Zone (PZ) or RTC Protection (Main Track authority or Siding Control Territory)
- A qualified employee through the use of a camera, who must not be involved in any unrelated tasks for the duration of the shove, and gives signals or instructions to control the movement

**At Risk Behaviour:** The operating crew demonstrates an at risk behaviour if they do not apply one or a combination of the protection methods listed.

**Remember:** Be familiar with the location of PZ/PPZ’s.

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2.15 Restricted Clearances

Dynamic Observation
Purpose: To ensure employees know the location of the Restricted Clearance(s) when riding equipment.
Observation: The Observing Officer must know what the restricted clearance is and where it is located. Observe the crew riding equipment into a track where there is a restricted clearance sign or special instruction for restricted clearance exists. The observing officer will then use radio communication or hand signal to stop the crew. When the employee riding the equipment detrains, ask them the following question.
Dynamic Question: “Where is the restricted clearance located on the track and which side is it on?”
At Risk Behaviour Defined: The employee(s) have demonstrated an at risk behaviour if they are unable to specify the location of the restricted clearance.
Remember:
• Employees are allowed to ride beyond the restricted clearance sign.

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<td>CROR General D</td>
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<td>CROR General E and F</td>
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<tr>
<td>GOI 8 12.4</td>
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2.16 Contaminated Flangeway

**Purpose:** To ensure employees are aware of the flangeway conditions at a crossing on non-main track. (Excluding Subdivision track)

**Dynamic Observation**

**Observation:** The observing officer will simulate a contaminated flangeway using approved equipment.

**Equipment Required:** The observing officer must use approved reflectorized triangles to simulate a contaminated flangeway. The observing officer must inspect the reflectorized triangles before and after the observation to ensure they are not damaged.

**At Risk Behaviour Defined:** The employee(s) have demonstrated an at risk behaviour if the movement does not come to a controlled stop prior to fouling the crossing, or the employees do not inspect the flangeway prior to operating over the crossing.

**Preparation/Conditions/Procedures:**

- Do not perform the observation on a truly contaminated flangeway to avoid adding risk to the test. The flangeway must be clear of contamination prior to observation being set-up.
- Do not perform on yard crossings (carmen crossings)
- The movement must come to a complete stop before the employee detains to inspect the crossing
- Be vigilant when placing the reflectorized triangles. Expect a movement at any time, in either direction on the track and expect vehicular traffic
- Use discretion when performing the observation under conditions that would not normally result in a contaminated flangeway. Example: Locations that would not normally be contaminated due to height of rail etc. This test is most effective when conditions may exist.
- This observation is ideal for crossings on industrial leads and customer sites

**Rule(s):**

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2.17 Self Restoring Dual Control Derails

Dynamic Observation

Purpose: To determine if crews stop prior to the dual control derail when the indicator light is not illuminated.

Preparation/Conditions/Procedures:

- Determine when a movement will be required to operate over the derail location
- Ensure the RTCC, Yardmaster or Switchtender (depending on territory) is notified that the observation will be performed.
- Set the derail for hand operation and move the derail into non-derailing position
- The indicator lights or targets may be covered once the derail is place in non-derailing position
- Ensure the crew returns the derail to the power position while the movement occupies the derail point.

Note: It is recommended that the S&C supervisor is consulted or assists in the observation. Some locations may require the operating crew to copy a Pass Stop Authority if the derail is placed in hand position.

At-risk behaviour defined:

Employee(s) do not stop prior to the derail location and do not comply with “Indicator Not Illuminated” instructions Rule(s): CROR 104.5 RSI 104.5

Example of derails and indicators:
2.18 Hard to Throw Switch Tag

Dynamic Observation

**Purpose:** to ensure employees are not operating switches equipped with the hard to throw switch tags

**Equipment required:** Hard to throw switch tag

**Preparation/Conditions/Procedures:**

- The observing officer must determine that the operating crew will require to use the switch
- Before placing the tag, the officer must ensure the switch is safe for use. If the switch is actually hard to throw, the switch must be tagged and the observation must not be performed
- Ensure the tag is filled out and properly attached
- The switch must be continuously monitored by the observing officer
- Ensure the tag is removed upon completion of the observation

**At-risk behaviour defined:** Employee(s) attempts to operate the switch while the tag is present.

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2.19 Hand Operated Switches Non-Main Track (Fouling Other Tracks)

**Purpose:** To heighten the awareness for employees when operating over non-main track hand operated switches in order to eliminate run-through switches, sideswipe collisions and entering the wrong track.

**Dynamic Observation**

**Observation:** The observing officer will simulate a switch not properly lined to determine that the employee use the targets and points to verify the route to be used. *note: Not to be performed on STK or sidings.

**Equipment Required:** The observing officer must use approved reflectorized triangles with improperly lined target to simulate a switch not properly lined. The observing officer must inspect the reflectorized triangles before and after the observation to ensure they are not damaged. The observing office must also inspect the switch points for obstruction before and after the test. AT NO POINT SHOULD THE TESTING EQUIPMENT BE BETWEEN THE POINTS AND STOCKRAIL OF A SWITCH (see below for correct placement).

**At Risk Behaviour Defined:** The employee(s) have demonstrated an at risk behaviour if the movement does not come to a controlled stop prior to entering the foul zone or occupies the switch before lining the switch for their intended route.

**Preparation/Conditions/Procedures:**

- The Observing Officer must always have view of the switch location
- Switch improperly lined sign is designed to entirely cover the face of a switch cube (Figure 1). If target is not equipped with newer style switch cube a clamp may be used to secure the sign to the target (Figure 2).
- Ensure Green or Yellow target is not visible (Target may need to be covered as seen in (Figure 2)
- Reflectorized triangles are to be used in conjunction with the switch improperly lined sign. See below for correct placement.
- The switch must always be lined for the movement on trailing moves when performing the observation

**Figure 1**
Correct position of reflectorized triangles for facing point move:
(Triangles are placed on the stock rail ahead of the switch points)
Correct position of reflectorized triangles for trailing move:

(Triangles are placed on the inside of switch the switch point)
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<td>CROR 114</td>
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3.0 RCL OBSERVATIONS (Transportation Canada)

3.1 Taking Charge of a Remote Control Locomotive (RCL)

Dynamic Observation

Purpose: To identify if the RCO is able to comply with the required procedures for inspecting, setting up, testing and securing Remote Control Locomotives.

Observation Protocol #1: Prior to RCO commencing duty, the Observing Officer must check the condition of the RCL to determine its current state. Ensure the handbrake is fully applied and the equipment is not on a steep grade. The observing officer will cut out one of the brake cylinders on the RCL or may close the train line angle cock between the locomotive and/or booster unit.

RCO must perform a walk-around inspection of the RCL at start of shift to verify brake pistons for any apparent defects as well check to ensure angle cocks are open between locomotives and/or booster. Note: there are several other items listed in GOI 6, the RCO must also inspect during the initial walk-around inspection.

Safe Behaviour: RCO detects brake cylinder condition.

At Risk Behaviour: RCO does not detect the brake cylinder condition during walk around inspection at start of shift (or during Initial Movement Test from a position on the ground)

Observation Protocol #2: Observing Officer can check the RCO ability to effectively set up the RCL for operation. Prior to RCO commencing duty, the Observing Officer alters the set up of RCL (ensure RCL is still in remote mode – lights flashing). Select one or more of the following: incorrect frequency for area F1, F2, F3, radio breaker off, engine run switch off, MU2A to Lead position -ensure independent brake is fully applied first, governor button out, over speed lever tripped.

At Risk Behaviour: RCO is unable to properly set up the RCL for operation.

Observation Protocol #3: The Observing Officer may question the RCO(s) knowledge of the proper procedures for setting up and testing the RCL. Note: It is imperative the Observing Officer have a thorough knowledge of the RCL Testing Requirements.

At Risk Behaviour: RCO is unable to answer specific procedural questions relating to the proper set up and testing of the RCL and OCU or provides the incorrect answer (example).

- Did the RCO verify the Brake Pipe gauge reduces to 60 psi after the RSC has been activated; then fully recover the Train Brake prior to initiating the Tilt Test?
- Did the RCO verify the Brake Pipe gauge drop to 0 psi after completing the Tilt Test?
- Was the proper test conducted (Hand off Test or Complete Test (24 hrs))?

Observation Protocol #4: The Observing Officer remains in close proximity to observe if effectiveness of handbrake is performed (LCS will sound the bell as the engine starts to move). After RCO departs locomotive cab, check to ensure Isolation Switch is placed in Start Stop Isolate. Ensure windows and doors are locked in an unsupervised yard.

Safe Behaviour: RCO applies handbrake to RCL (checks its effectiveness) and places Isolation switch to Start Stop Isolate Position (when stopped for break, lunch or end of shift). Windows and doors locked in unsupervised yard.

At Risk Behaviour: RCO does not apply a handbrake to RCL or does not check its effectiveness. Isolation switch not placed in Start Stop Isolate Position (when stopped for break, lunch or end of shift). Windows and doors not locked in unsupervised yard.

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<td>GOI 6.4 RCL Testing</td>
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<tr>
<td>GOI 6.7 Securing RCL</td>
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3.2 Pitch and Catch While Switching

Dynamic Observation

Purpose: To identify if the RCO is able to fully comply with instructions outlined in CROR and GOI pertaining to Point Protection Zones and Shoving Equipment. Pitching control to the RCO on the leading end of the equipment enhances the RCO’s ability to comply with Operating Rules.

Observation Protocol #1: Advance knowledge of the length of traffic being pulled out is essential. Both RCOs need to be positioned on the ground but one must be in a position to observe the indication of the PPZ signal and react should it change prior to entering the PPZ, or if it turns to solid red after entering the PPZ.

2 Officers are required to perform this observation:

• Officer #1 takes up a position to observe RCL and the indication of the PPZ.
• Officer #2 is positioned at extreme end of PPZ (buffer zone – last 500 ft).
• After the crew members relay the indication of the PPZ to one another Officer #2 shunts the track causing the indication to change from Yellow to Solid Red (this observation only works when PPZ originally displayed Yellow indication prior to entry).
• Officer #1 needs to observe this well before the RCL passes the PPZ signal.

At Risk Behaviour: RCO continues to enter PPZ without proper point protection.

Test Protocol #2: Observing Officer remains in close proximity to activity. When the RCO has completed coupling a track and is unable to personally protect the movement according to CROR 115, pitch should be given to RCO on leading end of movement in order to safely pull in the opposite direction. Pitch and catch must be made a regular practice between crew members in order to safely and efficiently control the movement.

At Risk Behaviour: RCO’s do not pitch control to the person on leading point of movement after coupling track is complete.

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<tr>
<td>GOI 6.8 PPZ/PZ CROR 115 Shoving Equipment</td>
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4.0 MAIN TRACK OBSERVATIONS

4.1 Switching En-route

Static Observation

**Purpose:** To ensure operating crews properly adhere to the requirements outlined in CROR 112 (a) when leaving a portion of their train while switching en-route.

**Protocol:** Observe crew leaving a portion of their movement unattended while switching en-route. This observation may be conducted while not visible or when train riding. Peer to Peer Communication must take place to ensure the proper method of securing equipment has taken place.

**At Risk Behavior:** The crew does not secure the equipment being left with hand brakes in accordance with CROR 112 (g). In addition, they will need another source of securement as listed in CROR 112(a).

*Note: additional form is usually airbrakes*

**Hint:**
- Contact RTC to determine where train will be switching while en-route
- Know the grade % of track
- Validate Peer to Peer Communication by questioning crew members individually on content of communication.
- If crew has already left the location and the equipment is not properly secured, the Officer must take necessary action to properly secure the movement.
- Once equipment is cut off, make note of the time and see if the crew returns to the equipment prior to 2 hrs elapsing.

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<thead>
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<th>Rule(s):</th>
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<tbody>
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<tr>
<td>CROR 112(a)</td>
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<td>CROR 112(g)</td>
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</table>
4.2 Unattended Movements with Locomotives attached

Static Observation

Purpose: To ensure employees properly secure their movement when left unattended with the locomotives attached on main track, sidings, subdivision track or high risk locations.

Protocol: Observe crew leaving their movement with locomotives attached to other equipment. Ensure they meet the requirements by properly securing equipment.

At Risk Behaviour:

• Did not apply the required handbrakes outlined in CROR 112(g).
• Did not test effectiveness of handbrakes as outlined in CROR 112.
• Did not apply the air brakes.
• Did not have one of the following as an additional method of securement:
  ○ Derails;
  ○ track where rail physically ends;
  ○ bowled terrain as identified in special instructions; or
  ○ Locomotive equipped with roll-away protection.
• No Peer to Peer communication relative to handbrake application before leaving that location.
• Locomotives were not secured and air brakes applied as follows:
  ○ Positive reduction.
  ○ Independent brake fully applied.
  ○ Handbrake applied on all locomotives in the lead consist.
  ○ Locomotives secured per CN 8960 B2.2 and B2.4.

Hint:

• Obtain information on consist – number of cars.
• Know grade % of track track.
• If train is left on a track with varying grades, the average grade on which the equipment is standing must be used.
• Validate Peer to Peer communication by questioning employees separately on content of information communicated.
• This observation can be a combination of visual activity and/or questioning the employee(s) knowledge of the proper application on securing their movement.
• If crew has already left the location and movement is not secured properly, the Officer must take necessary action to ensure it is properly secured and/or must remain with the movement.

Rule(s):

GOI 9.2.1 - Application of Handbrakes
GOI 8 12.15 item 14
CROR 112
CN 8960 B2.2 and B2.4
4.3 Securing Equipment without a Source of Air Attached

Dynamic Observation

**Purpose:** To ensure crew members properly secure equipment when left on main track, sidings, subdivision track or HRLs without a source of air attached.

**Protocol:** Observe the crew leaving equipment on a main track, siding, subdivision track, or HRL.

Main Track, Sidings, Subdivision Track or High Risk Locations

Equipment must be secured as per 112(a)(i). Determine if the proper amount of handbrakes have been applied based on track grade and the tonnage of the equipment as per 112(g).

Note: Spur track (non-main track)

Ensure the adequate number of handbrakes are applied as per 112(b). Remember, if the grade on the spur is more than 0.4% the crew will have to secure the equipment using the 112(g) chart.

**At Risk Behaviour:**

- Crew does not apply the required number of handbrakes in either situation.
- Crew uses the locomotive handbrake application in the count of that required by the chart 112(g)
- Did not test effectiveness of handbrakes.
- No Peer to Peer communication relative to handbrake application before leaving that location.

**Hint:**

- Obtain information on consist – number of cars being left.
- Know grade % of track.
- Validate Peer to Peer communication by questioning employees separately on content of information communicated.
- If crew has already left the location and the equipment left is not properly secured, the Officer must take necessary action to ensure it is properly secured.
- If airbrakes are used in conjunction with handbrakes without an air source attached, the equipment may only be left for 2hrs before additional action must be taken.

**Rule(s):**

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<th>Rule(s)</th>
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<tr>
<td>112(iv)</td>
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<tr>
<td>112(a)(i) Main Track, STK, Siding or HRL</td>
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<tr>
<td>112(b) Non-Main Track (Excluding STK, Sidings, Yards and HRLs</td>
</tr>
<tr>
<td>112(g) Chart</td>
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4.4 Continuity Test

Dynamic Observation

**Purpose:** To ensure that Locomotive Engineer properly determines the integrity of the airbrake system through a proper Continuity Test.

**Procedure:** At a location where a continuity brake test is required, arrange to have an angle cock near the rear of the train closed or the brakes cut out on the last car. This will negate the ability to perform the required continuity test.

**At Risk Behaviour:** the locomotive engineer fails to note the discrepancy and arrange for correction before starting to depart.

As a subsequent observation, observe the level of brake application utilized in the continuity test, which requires that, a 6 PSI reduction as indicated on the rear car rather than a full service reduction.

**DYNAMIC POINT:** The crew member conducting the continuity test must identify that there is no change in brake pipe pressure on the last car as indicated on the IDU.

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<td>GOI 7.9(d) Continuity Test</td>
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<tr>
<td>GOI 8 12.11 Coupling and Uncoupling Air Hoses</td>
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**Remember:** Some EOT’s require air pressure to operate. When there is no air pressure to this type of SBU, the locomotive will have no communication with the EOT.

**Definition of a Continuity Test:** a signal from the controlling locomotive to the rear car is transmitted through the brake pipe which verifies the integrity of the brake pipe.

**Continuity Tests are required when:**

- The controlling locomotive has been attached to a train that has received a number 1 brake test utilizing a yard test plant
- At through Train crew change out off locations. ([Be aware of the exceptions in 7.9(d)](#))
- After Locomotive is re-coupled to Train (no cars added).
- Prior to conducting this test review the Freight Air Brake Test Chart.
4.5 Transfer Air Brake Tests

**Dynamic Observation**

**Purpose:** To ensure that the crew operating a Transfer completes the proper brake test.

**Observation 1:** Arrange to close the angle cock prior to the last car of a Transfer. This will render the air brakes inoperative. Observing Officer must remain in position to ensure that transfer does not depart the yard.

**At Risk Behaviour:** Crew does not verify that there are operative brakes in the last three cars.

**DYNAMIC POINT:** The crew member checking for the set up and release must find the brakes not operating in last three cars of the transfer.

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<tr>
<td>GOI 7.13 Freight Air Brake Chart</td>
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<td>CROR 64 Transfer Requirements</td>
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4.6 1A Air Brake Test

Dynamic Observation

**Purpose:** To ensure that the train crew knows that a #1-A brake test is only transferrable if it is done at that location within the previous 24 hours.

**Observation Protocol:** Observing Officer will leave a Brake Status Report with a cut of cars that are to be lifted by a train. The BSR should either show that the cars where tested at another location or the date on the BSR should be more than 24 hours old. The Observing Officer must remain in position to prevent the movement from departing the location with the cars not being tested.

**At Risk Behaviour:** Crew starts to lift cars without conducting a new 1-A brake test being performed on the cars to be lifted. GOI 7.9(c)

**Procedures:** The Observing Officer will leave a Brake Status Report with a cut of cars that are to be lifted by another movement. The BSR should show either:

- Cars were inspected and tested at another location.
- Test and inspection were completed over 24 hours prior to pick up.
- No notation on the pre-departure inspection being completed.

If the crew does complete a 1-A test, the Observing Officer should look at the BSR and confirm that the 1-A brake test and pre-departure inspection has been properly recorded.

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<td>GOI 7.13 Freight Air Brake Chart</td>
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<tr>
<td>GOI 5.7 Inspection of Standing Equipment</td>
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**Remember:** The brake set up must be completed from a position on the ground (ie. walking) and the release can be observed by pull by inspection.

The Observing Officer must make a decision as to when to stop the train from departing from location. The train crew may state that they were going to complete the brake test after coupling on to the through portion of the movement. If the Conductor has coupled the equipment onto the through portion and begins to walk towards the locomotive, this can be taken that the crew was departing.
4.7 Public Crossings at Grade with Warning Devices

Dynamic Observation

Purpose: To ensure that Operating employees understand the necessity to comply with Operating Rules and instructions from the RTC when approaching and proceeding over crossings with defective Advance Warning Devices (AWD).

Description: PUBLIC CROSSINGS AT GRADE WITH DEFECTIVE WARNING DEVICES.

Dynamic Observation: Rule GBO Form V example 4.

Protocol: The Observing Officer from a crossing location will contact the Chief RTC to issue a GBO or message to a movement that the AWD is defective and they must stop and manually protect the crossing. The Chief RTC will advise the S&C desk of the observation.

 Hint 1 - If using a vehicle (preferably unmarked), its best to approach or wait at the crossing with the vehicle when the train is approaching. This removes the ambiguity with respect to Rule 103(g) which states "When the crossing is known to be clear of traffic and will remain clear until occupied, manual protection need not be provided".

 DYNAMIC POINT: The crew must stop and provide manual protection of the crossing.

At Risk Defined: Crew does not stop or does not provide manual protection from a point on the ground

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<td>GBO Form V example 4 Automatic Warning Devices</td>
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<td>CROR 103(g) Manually Protection</td>
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Remember:

- The RTC may issue a message instead of a GBO if the defect will be of a short term nature AND maintenance forces have been dispatched.
- The crew must manually protect the crossing from a point on the ground. Other employees may provide the manual protection if they are QSOC qualified in the rules. The train must always stop.
- When manually protecting the crossing, the crew member must be in a position on the crossing.
- Always advise the Chief Rail Traffic Controlled before starting.
- Once the observation is completed, you MUST advise the RTC either directly or through the chief RTC that the observation is completed and that the GBO may be cancelled.
- A common misunderstanding is that defective AWD is when it does not operate, however if the AWD is operating continuously is also a very serious defect. Train Crews may think that if they see the AWD working they do not have to stop and provide manual protection.

 Hint 2 – you may combine this test with a test of RTC and the S&C call desk. If you do this you must involve the Chief RTC and the S&C Supervisor for the area. To initiate the test a call will be placed to the 1-800 number identified on the Crossing Bungalow.
4.8 Wayside Inspection Detector Malfunctions

Dynamic Observation

**Purpose:** To ensure that crews passing over WIS detectors are listening for broadcasts of defects and react properly when they do not receive any broadcast after having passed over the WIS. The observation may be performed remotely if the site is Wayside Information Management (WIM) capable or accompanied by an S&C Supervisor. Contact the Chief Dispatcher to determine if the chosen site is equipped.

**This observation must not be done on movements handling special dangerous commodities at WIS locations identified in the SDC section for mandatory inspection.**

At locations where the WIS is the next mandatory inspection for that movement, eg. 60 mile inspection or 40 mile inspection for Key Train/Higher Risk Key Trains on Key Routes, the Observing Officer must be able to provide a Rule 110 inspection for both sides.

**Preparation:**

1) Select WIS location where test will take place. Determine if site requires on-site or can be remotely tested. If on-site and assistance from S&C is required, ensure to request at least 2 days prior.

2) Request assistance from Chief Dispatcher for remote test or Advise Chief Dispatcher of test to be performed if on-site.

**Remote Observation for Hot Box Detector Talker Malfunctions (WIM)**

1) The observing officer must contact the Chief Dispatcher who will open an “Alert” ticket on the site to indicate a safety observation is being done. This allows the observing officer to perform the observations remotely.

2) The Chief Dispatcher will place the WIS into “Test Mode Enabled”. During this time, the talker will perform the necessary radio broadcast is a defect is detected. However, a message will not be broadcasted if no defects are found.

*Note: Chose a location where the train is not likely to stop during the observation. If the train does stop on the detector during the observation, a broadcast of the inspection results will be made when the tailend portion clears the site. This will result in an incorrect axle count.

When the observation has been completed, the WIM system will place the WIS into a normal state.

If observing more than 1 train at the location, the above process must be repeated.

**On-Site Observation for Hot Box Detector Talker Malfunctions (WIM)**

1) Observing Officer will advise Chief Dispatcher and S&C Supervisor for territory.

2) Observing Officer to go to WIS site to perform safety observation. Note: Observing Officer must be accompanied by and S&C supervisor.

3) Observing Officer must exercise care to avoid coming in contact with electronic components.

4) Observing Officer must be in position to inspect passing movements as per Rule 110 and be prepared to turn off talker as last car passes WIS. Officer must remain within hearing distance of talker inside bungalow.

5) Observing Officer must monitor RTC Channel and allow crew approximately 75 seconds after passing WIS to communicate with RTC and commence slowing movement down to 35 mph. (NOTE: 75 SEC = 45 SEC FOR WIS TO NOTIFY CREW BY RADIO MESSAGE, approximately 30 SEC FOR CREW TO REACT)

6) If officer does not hear crew communicate with RTC, the officer must contact Chief Dispatcher or the RTC to confirm that train crew has or has not contacted RTC through other means and that WIS did not detect any alarm conditions.

7) If the crew did not comply with the requirements of GOI 5.3, the Officer must notify crew at first opportunity where safety is not impacted (i.e. prior to their train passing next WIS).

8) Prior to completing the observation and leaving the site, the officer must turn the talker back on, record his presence in bungalow log book, lock bungalow and notify Chief Dispatcher. (unless observing additional trains.)

**Critical Rule: 5.3 WAYSIDE INSPECTION SYSTEMS MALFUNCTIONS**

An At Risk will be recorded if the crew:
• Does not begin to reduce speed to 35 mph within 60 seconds of the last car passing the WIS detector.
• Crew does not contact the RTC to report the lack of transmission and obtaining the results of the inspection.
• Crew does not initiate call to RTC with DTMF *5711#

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<td>GOI 5.3 Wayside Inspection System Malfunctions</td>
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Remember:
The WIS remains functional while train passes by in the event that an actual defect (WIS alarm) is detected. This can be heard in the bungalow and also the RTC system which displays alerts to advise RTC of the defect.

This procedure provides guidance on allowable reaction time for crew
If possible the Observing officer should plan the observation so they may be in position prior to train arriving crew change location or final terminal. This will allow Observing Officer to provide expeditious feedback to crew while minimizing risks.

Carry 2 radios, 1 monitoring the RTC standby Channel and the second monitoring the end to end stand by channel.

HINT: REMOVING WIS TALKER FROM SERVICE
This document was produced to help achieve an observation for WIS sites without removing site safety inspection.

To prevent the WIS site from properly transmitting the talker message at the end of a passing train, power off the talker's radio using ONLY the radio power switch. Doing so will allow a message that should have been transmitted on radio to be monitored inside the bungalow and will also allow inspection data to be sent to the office for release of train speed restriction.

Caution: Shutting off any other components (Power supply, chassis, etc.) could result in a situation where a Hot Bearing or a Hot Wheel might not be detected or an alarm not transmitted to the office. Also, in a case where a tone is heard while the train is going by, might indicate a problem was detected and the radio should be turned on immediately to allow the Alarm message to be transmitted to the train crew.

Note: There are 3 different radio models used in WIS sites are pictured below with a RED arrow pointing towards the ON/OFF switch.

GE PHOENIX SX

MOTOROLA CDM-1250
MOTOROLA MAXTRAX 300
4.9 Signal Imperfectly Displayed

**Purpose:** To determine if train crews understand the application of rule 27 (b)

**Description:** SIGNAL IMPERFECTLY DISPLAYED

**Protocol:** At a controlled location in CTC territory *where a three-aspect signal is present and where a train is signaled through the location*, arrange for the bottom aspect of the signal to be extinguished. This must be done with a S&C supervisor. This will produce an imperfectly displayed signal with Green, Yellow or Flashing-Yellow still displayed in the signal but with the bottom aspect ‘burnt out’. In this circumstance, the train crew would be required to apply Rule 27(b) – “Proceed, reducing to SLOW speed through turnouts, when practicable, preparing to stop at next signal”. The train may proceed, and is not to consider the signal as a Stop indication, but preparing to stop at the next signal. The train must also communicate with the RTC and advise of an imperfectly displayed signal.

Ensure the Chief RTC is notified before performing this observation.

**At Risk Behaviour:** Crew stops movement or fails to advise RTC.

**Critical Rules:** Rule 27(a) – Signal Imperfectly Displayed (report to RTC); Rule 27(b) – Signal Imperfectly Displayed (proceed)

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<tr>
<td>CROR 27 Signal Imperfectly Displayed</td>
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**Hint:** Keep in mind signal progression when conducting this test. Apply this to a train which will already be receiving more restrictive indication other than clear signal.
4.10 Stopped by Red Flag/ Light – Restricted Speed or Reduced Speed

**Dynamic Observation**

**Purpose:** To ensure that employee controlling movement has control of movement and complies with CROR Reduced Speed or Restricted Speed.

**Description:** Stopped by red light (simulated EOT marker) or red flag (when displayed as a stop signal by hand) while operating at RESTRICTED Speed or REDUCED Speed.

**Tools Required:** Red flag to be able to display stop indication by hand signal. Red Light or Flashing Red Light, Radar / Lidar Gun or access to Wi-tronix if required to monitor speed.

This observation simulates the requirement of a movement to be able to stop within one-half the range of vision of equipment while operating on main track at restricted speed or SCT siding at Reduced speed.

**Protocol:** Arrange in advance with Chief RTC to have the RTC:

1) issue a pass stop authority to a movement, or
2) advise the movement that there may be equipment present when they are lined into a SCT siding, or
3) After advising the Chief RTC, **be accompanied by a Signals Officer** to assist the Observer by creating a block down effect. This will display a restricting or stop and proceed signal to the crew approaching an intermediate signal. **This must not effect the crew's normal progression of signals.**

To avoid effecting the normal progression of signals, CROR 571 must be adhered to when performing this observation.

The Chief is to advise the RTC that if questioned regarding a movement in the block ahead, and provided there is no emergency, the RTC is to state, “standby”. The RTC will wait until the test is over before responding to the crew.

Place red light, similar to an EOT light, at night on the track (between the rails) for an approaching movement or by day display a stop signal by hand with a red flag.

The movement must stop in a controlled manner prior to the location of the flag/light and not proceed beyond the location of the flag/light until the flag/light has been removed and instructed to proceed by the officer conducting the observation.

**At Risk Behaviour:**
- The movement does not stop prior to the red flag/light
- The movement stops beyond the flag/light
- If the movement is brought to a stop as the result of an emergency application of the automatic brake

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<td>CROR Definition – Reduced Speed</td>
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<td>CROR Definition – Restricted Speed</td>
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**Remember**
- This observation must not be conducted on a movement operating under the provisions of CROR 564 (e) Reduced speed 564.
- Flag must be the same type of flag from a CN flagging kit
- Simulated EOT must be placed in a location between the rails where employee controlling movement has unobstructed view.
• If you have access to a speed detector (radar/Laser) gun the maximum speed is SLOW speed (15 mph) when operating at Restricted Speed.

• The timing of displaying the red flag/light is critical. The officer must know at what point the movement will first be able to see the red flag/light and therefore must NOT display the flag AFTER the movement is by that point.

**Hint:**

• Take up a position near the red light.

• Have a metal post (a tripod works well) so that red light with magnet can be attached,

• Automotive retailers sell flashing red LED Lights with a magnetic clip

• Flashing red light is acceptable.

• Have the radio shop/Equipment Department make up a shell of an EOT/SBU which can have a flashing red light attached and can be mounted between the rails.
4.11 Stopped by Stop Signal

**Dynamic Observation**

**Purpose:** To determine if operating crew has proper control of movement approaching and stopping at a stop signal

**Description:** STOPPED BY STOP SIGNAL

**Protocol:** Arrange ahead of time with the Chief RTC for the display of a STOP indication at a controlled location. The train must pass at least one signal displaying CLEAR to STOP, and a STOP must be made at least 300 feet in advance of the signal (Unless for one of the situations listed in Rule 439 SI). A member of the crew must contact the RTC if no conflicting movement is evident.

**At Risk Behaviour:** The crew is demonstrated an at risk behaviour if:

- The train fails to make a complete stop prior to the signal.
- If movement stopped account operator initiated emergency application of the train brake system
- If movement is stopped within 300 feet of the signal (Unless for one of the situations in Rule 439 SI).
- Crew does not contact RTC

**Dynamic test:** A stop signal is displayed for the train at a controlled location.

**Critical Rules:** Rule 439 – Stop Signal;

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<td>CROR 122 Content of Radio Communication</td>
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**Remember** – This observation can be done in conjunction with Wi-Tronix Downloads. If a train is placed in emergency through operator initiation, the locomotive is automatically downloaded. Observing Officer may obtain this download and also camera footage if so equipped and determine if the operator had control of the movement approaching the stop indication. The camera will give a visual on why the operator placed the train into emergency and how far the movement was from the fouling point.

**Remember:** When Crew contacts the RTC the radio conversation should be monitored for compliance by both the Operating Crew and the RTC.

**Hint:** If possible, plan the observation for a movement that will not be expecting a conflicting movement.
4.12 Obtaining a Pass Stop Authority

Dynamic Observation

**Purpose:** To determine if operating crew properly applies the requirements of CROR 564 passing a stop signal with written authority.

**Description:** Obtaining a Pass Stop Authority

**Protocol:** Arrange ahead of time with the RTC for the display of a STOP signal at a controlled location. The train must pass at least one signal displaying CLEAR to STOP, prior to.

Have the RTC issue a pass stop authority with switches “must” be placed in hand. Movement comes to a stop at the controlled location; crew member contacts the RTC and is issued the Pass Stop Authority. Listen to the issuing of the authority and ensure compliance to radio rules and determine that the train crew is instructed to operate the dual control switch in “hand” and what the route to be used is. The crew may contact the RTC and obtain a pass stop before arriving at the controlled location, if so the train need not stop at the signal. They must stop at before fouling the switch which they where instructed to place in hand position.

**At Risk behaviour:**

- The train does not make a complete stop 300 feet or more in advance of the stop signal; If they received the 564 before arriving at the signal they need not stop at the signal.
- Selector lever is not placed in hand.
- Hand throw lever is not operated back and forth until the switch points move in both directions.
- Switch is lined for the wrong route.
- Selector lever is restored to power position before the locomotive moves onto the points.
- If movement stopped account operator initiated emergency application of the train brake system.
- If movement operates in excess of 15MPH within the block when required to operate at Restricted Speed.

**Remember:** Movement must stop at least 300 feet in advance of the stop signal if they have not received the pass stop authority in advance.

**Rule(s):**

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<td>CROR 104.2 Dual Control Switches</td>
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<td>CROR 439 Stop Signal</td>
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<td>CROR 564 Authority to Pass Stop Signal</td>
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<tr>
<td>CROR Definition – Restricted Speed</td>
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</table>

**Hint:** If there are 2 officers the movement may be tested with a red flag/light and Radar/Ladar Gun for compliance with restricted speed in the block following the pass stop authority.

If practicable complete this test at a control point with a short block in order to avoid adverse impact to operation. An example would be the control point entering into a siding, have the train routed on the main track at restricted speed.
4.13 Obtaining a Pass Stop Authority (2)

Dynamic Observation

Protocol: Prior to the train stopping at the controlled location, arrange for the Chief RTC to have the RTC issue a pass stop authority. Cover the number plate on the Controlled Signal that movement has authority to pass prior to the movement arriving.

NOTE: Crew in possession of a pass stop authority prior to arriving at signal, need not stop, but must identify/verify signal number before passing. This observation ensures that the crew positively identifies the signal number that they have authority to pass.

At Risk Behaviour: The crew has demonstrated an at risk behaviour if the movement does not stop prior to passing the signal or if the movement is stopped by an operator initiated application of the emergency train brake.

Rules: Rule 564 – Stopped by Stop Signal

Covering the number plate: When covering the signal number plate, the Observing Officer must not put themselves in a position which requires fall protection. Below is an example of a simple plate cover that can be easily constructed.

A size of 20" x 9" should be sufficient to cover most plates.

Note the collapsible pouch on the back of the cover which can attach to an extension. Use an extension such as a yard stick or telescopic pole to apply the plate cover for high mast signals.
4.14 Planned Work

Dynamic Observation

**Purpose:** To ensure that Foreman is listening to repeats

**Protocol:** When a rain crew is in possession of Form Y, after the Foreman gives permission through limits with a restriction, ensure the crew operating train have a clear understanding of the restrictions, that the instructions are written down and the crew is prepared to comply. Observing Officer will then give repeat back to Foreman with an error in restriction given.

**Dynamic Testing Rules:**
CROR 42(b) and CROR 123(b)

**DYNAMIC POINT:** Foreman should correct error and ask for another repeat.

**At Risk Defined:** The Foreman demonstrates an at risk behaviour if they fail to correct the error and ask for another repeat.

Train crew demonstrates an at risk if they do not write down the instructions.

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<td>CROR 121 Positive Protection</td>
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<tr>
<td>CROR 123 (b) Verification Procedures</td>
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</table>

**Remember:** This is really an observation of the Rule 42 foreman however the impact on the operating crew should be very strong as they will see how easy a mistake can be made if the employee (in this case a rule 42 foreman) is not focused on the task.

You must be very focused when doing this procedure. Ensure that the operating crew has a clear understanding of the instructions BEFORE repeating back to the Foreman.

**HINT:** Use caution on choosing the location of this observation.

If the Foreman demonstrates an at risk behaviour, ask the Foreman to repeat the instructions again. Proceed to the red flag and stop, requesting that the Foreman meet you at the red flag. Advise the Foreman of the observation and that the Foreman demonstrated an at risk behaviour. Contact the Foreman's supervisor and explain the situation to the supervisor who will arrange the necessary follow up with the Foreman.
4.15 Unusual Track Signal Conditions (Yellow Flag Observation)

Dynamic Observation

Purpose: To ensure that operating crews are observant to the surroundings and on the lookout for unusual track signal conditions that are NOT included in their DOB/TGBO

Description: UNUSUAL TRACK SIGNAL CONDITIONS – PLACEMENT OF A YELLOW FLAG TO THE OUTSIDE OF THE TRACK

Protocol: At a location with good approach sight lines and with Rule 42 or 43 NOT in effect within 5 miles, place yellow signals/flags to display a yellow signal to the right of the track as seen by the trains chosen for the observation. If successive observations with trains in different directions is desired, the yellow signal needs to be relocated to the right of the track as seen by the approaching trains or 2 flags, 1 for each direction can be used. In multi track, yellow flag must be place on the track where train will not operate on the adjacent track.

A train or engine encountering a yellow flag without a GBO requiring the placement of such signal, must reduce to 10 MPH and immediately communicate with the RTC and be governed by their instructions. Advise the appropriate Chief RTC of the intent to perform this observation which will allow for the RTC to be aware and able to inform the train to proceed without restriction after the crew contacts the RTC.

Dynamic Observation rule: Rule 44(e) – Unusual Track Signal Conditions

At Risk Defined: Crew does not reduce to 10 mph and does not contact the RTC for instructions.

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<td>CROR 44(e) Unusual Track Conditions</td>
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</table>

Remember:

- The Yellow flag must be placed in the same position that one would normally be placed by Engineering Forces.
- Must display yellow only in the direction of an affected approaching train
- Use a standard Yellow flag that Engineering forces use that yellow flag must be reflectorized when day signals cannot be plainly seen. Standard size should be at least 22 inches by 24 inches.
- Remain Patient, the crew will observe the yellow flag then have to review the GBO's on the DOB/TGBO.

Hint: plan your location of this observation. Train will be reducing to 10 mph and dependant on the length of the train, this may result in the train having to stop before releasing train brakes – review and be familiar with Form 8960 G3.7. Ascending grade may not be a good location for this observation.

Hint: Ask engineering for the same stand that they use for a rule 43 flag placement.
4.16 Unusual Track Signal Conditions - No Red Flag at Planned Work

Dynamic Observation

**Purpose:** To ensure that operating crews are observant to the surroundings and on the lookout for unusual track signal conditions that are NOT included in their DOB/TGBO.

**Description:** UNUSUAL TRACK SIGNAL CONDITIONS - Removal of a Red Flag

**Protocol:** The Rule 42 Foreman must be made aware of the observation and be instructed not to resume work and remain clear of the track until advised that the red flag is placed back in position. After the Foreman named in the planned work has given instructions to the approaching movement to pass the red signal, observing officer AND Foreman will remove the red signal. Observing Officer will monitor RTC Stand by radio channel for communication from train crew.

**Dynamic Observation rule:** Rule 44(a) – Unusual Track Signal Conditions

**At Risk Behaviour Defined:** The crew demonstrates an at risk behaviour if they do not contact the RTC.

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<tr>
<td>CROR 44(a) Unusual Track Conditions</td>
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**Remember:** You must have very thorough understanding/job briefing with the Foreman named in the Planned Work and that the Foreman understands that the red flag will be removed and that the work is not to resume and the track remains clear of workers and equipment until such time that Observing Officer and Foreman replace the red flag. **The crew is not required to call the RTC when advised by the Foreman or the RTC that the flag is not in place.**

The Chief RTC must be advised so that RTC is aware that it was an observation and will answer the crew of the movement being observed that the Foreman is aware an the red flag will be restored.
4.17 Taking Charge of the Locomotive

Dynamic Observation

Purpose: To ensure that locomotive can be operated safely at the outset of a tour of duty and that operating employees are aware of any issues that previous employees have found which if not known could result in the unsafe operation of the locomotive consist.

When a locomotive is placed in service at other than a safety inspection location or laid over for more than 8 hours, the locomotive must have a pre-departure inspection performed by either the locomotive engineer or a qualified person. For Beltpack operation a walk around and Beltpack test must be performed.

Protocol: Observing Officer will arrange to have a new form 538-d placed in cab of locomotive indicating that the locomotive has lain over for more than 8 hours.

At Risk Defined: The crew will be considered to be in non-compliance:

- If the locomotive engineer does not complete 538-D
- Does not complete a shop track brake test at outpost locations.

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<td>8960 B1.4 Shop track Test</td>
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<td>GOI 6.4 RCL Testing</td>
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</table>
4.18 Automatic Interlocking – Stopped by an Interlocking Signal displaying Stop

Dynamic Observation

**Purpose:** To ensure understanding of how to safely operate through an Automatic Interlocking when stopped by a stop signal

**Protocol:** Observing Officer will ensure that the Chief Rail Traffic Controller of each Railway is advised in advance of the test.

Arrange for the track of the opposing railway be shunted.

Prior to the movement arriving, observe the signal indications for the approaching train to ensure that they are indicating STOP. Observe the box marked switches to ensure that the lights of the conflicting movement are extinguished. If in CTC territory, after Movement departs, Observing Officer may drive to point were radar or Ladar can be used to ensure that movement is complying with restricted speed restriction of operating at no greater than Slow Speed (15 mph)

**At Risk Defined:** The crew demonstrates an at Risk behaviour if you observe one of the following:

- Movement does not stop at interlocking signal
- Crew member does not proceed to nor open box marked switches
- Movement does not wait the required time before proceeding.
- Crew member restores the knife switch and closes the box marked switches before the movement occupies the crossing.
- Movement does not proceed at Restricted Speed to the next signal or block end sign.

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<td>CROR Restricted Speed</td>
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You must be instructed by S&C Officer on how to shunt a track.

**Remember:** Many Interlockings are tied into the CTC system. When working around the interlocking you may affect the CTC block as well. Confirm with Signal Supervisor prior to conducting test.

**Remember:** To read the footnote instructions for Interlocking as well confirm and instructions contained in the “box mark Switches”
4.19 Automatic Interlocking – Stopped by an Interlocking Signal displaying Stop and a CROR 840.3 Protection of Track Work in place

Dynamic Observation

**Purpose:** To ensure understanding of how to safely operate through an Automatic Interlocking when there is Track Work Protection in place

**Protocol:** Ensure that the Chief Rail Traffic Controller of each Railway is advised in advance of the observation. The Chief RTC MUST advise the RTC of the observation. Observing Officer will open the box marked switches observe the occupancy indicators, if all lights are illuminated, open the knife switch. Observing Officer will then apply a visible indicator marked “840.3 protection”. Observing Officer will then take up position to observe the actions of the crew of movements encountering the red signal of the interlocking.

**At Risk Defined:** The crew will has demonstrated an at risk behaviour if:
- Movement does not stop at interlocking signal displaying stop.
- Crew Member does not proceed to box marked switches
- Movement does not attempt to contact the Employee in Charge of the Rule 840.3 protection.
- Movement does not proceed at Restricted Speed to the next signal or block end sign.

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**Remember:** The train will not and does not know the name of the employee with the track protection. Proper Radio Procedure is to be used by the crew in a transmission example “CN 5533 West calling Foreman with rule 840.3 protection at Melrose over”. At this time the observing officer using proper radio procedures or through personal contact will advise the crew of the test and that the movement is authorized to proceed.

Prior to setting up the observation, obtain a line-up of approaching trains. If you are going to observe the foreign railway, ensure that CN is the company responsible for maintenance of that interlocking.
4.20 Boarding a Train

**Static Observation**

After boarding a train or engine first check for proper operating authority OCS territory/CTC (OCS Clearance, Track Warrant etc.)

Next check that the Conductor and Locomotive Engineer have, where required, the proper DOB or TGBO and that they are properly initialed and signed (Rule 142(a), 156 and 157).

Check that they have valid Dangerous Goods Training Certificate and Rule card (Rule A (vii));

Observe/check their physical condition (Rule G);

Check for non-railway printed material openly displayed in the cab of the locomotive (Rule A (xi)).

Verify train summary form consist/journal for accuracy and the crew is in possession of a E-Journal if available. Ask the employee to demonstrate how to transfer the journal information via Bluetooth.

Check Operating Manual for current Time Table, Summary Bulletin, Regional Data, CROR, GOI and Dangerous Goods. If the employees are using a Railroad Supplied Electronic device, check to see if it is charged and was synced at the start of their tour of duty.

Employees must also have available for use their safety glasses, safety footwear and reflective apparel.

Non-compliance in any of the above requirements constitutes an at risk behaviour

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<td>CROR A</td>
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<td>CROR G</td>
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**Remember:** The Dangerous Goods Training Certificate (TDG Card) MUST be signed by the employee
4.21 Train Riding

Static Observation

**Purpose:** To monitor operating crews for compliance when performing the duties on a train.

**Description:** Observing Officer will be evaluating crew compliance with all CROR and Special Instruction issues encountered during the course of the trip. Verification of train consist accuracy is to be performed whenever possible. Officer must be familiar with territory, train handling instructions and all Operating Rules and other Instructions and should observe from the lead locomotive. The Officer should not initiate compliance requirements, but note employee commitment and coach/mentor where required.

**Equipment Required:** Operating Manual/Timetable-Portable Radio-TGBO/DOB- Train Journal-Switch Keys.

**Observation Application:**
- Introduce yourself to crew and explain audit process.
- Participate in Job Briefing/Check Operating Bulletins and TGBO/DOB.
- Ensure proper ABT and Pull-by Inspection process where required.
- Ensure/check operating authority i.e. OCS Clearance or Signal Indication/RTC Authority.
- Promote proper radio procedure.
- Check speed compliance particularly thru PSO/TSO limits.
- If a track release is observed, ensure the crew has a job briefing to establish the location of the tail end, records the time and location and this recording is provided to the Locomotive Engineer for reference during the confirmation process with the RTC.
- Provide immediate feedback to crew re: positive and negative compliance issues.

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**Note:** Observing Officer is not to initial nor sign TGBO as this will make them a part of the crew and not a supervisor.
4.22 Written Authorities

Static Observation

Description: WRITTEN AUTHORITIES

When a written authority or instruction is transmitted and repeated by voice communication numbers must be pronounced in full, then repeated stating each digit separately. Single digit numbers must be pronounced then spelled. The employee copying must copy as it is transmitted, must not have any content pre-written on any required form and must repeat from the copy received, ALL applicable written and preprinted portions. Failure in any of the above components would constitute an at risk behaviour.

NOTE: When transmitted by radio all applicable radio rules must be complied.

Critical Rules: Rule 136 (b) – Copying Repeating and Completing; Rule 123 – Verification Procedures; Rule 136 (a) – Copying, Repeating and Completing

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<td>CROR 136 Copying, Repeating, Completing and Cancelling</td>
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Remember: Crew to Crew instructions and RTC to Crew are to be in writing.
4.23 Movement Approaching Crossings Engine Bell/Whistle Signals Headlight and Ditchlights

Static Observation

**Purpose:** To ensure crews understand and are in compliance with basic operating rules while approaching and passing over a public crossing at grade.

When a train is approaching a crossing, the headlight MUST be on full power and ditch lights on for at least one quarter mile in advance of the crossing.

If there is no anti-whistling by law in effect the whistle must be blown a quarter mile prior to the crossing unless the movement is travelling at less than 44 mph then it is to be blown from such point as to provide 20 second advance warning before entering the crossing.

**Protocol:** Observing Officer will take up a position in which the movement can be observed. Observing Officer should not be seen by approaching movement. Observing Officer will observe headlight and ditchlights, time the whistle signal.

**Critical Rules:** Rule 13 – Engine Bell; Rule 14 NOTE (ii) – Engine Whistle Signals (intensity); Rule 14(l) – Engine Whistle Signals (1/4 mile from crossing); Rule 17 (a) – Headlight

**At Risk Defined:** The crew has demonstrated an at risk behaviour if:

- The bell is not rung from a quarter mile in advance of the public crossing (unless the whistle signal 14(l) is being sounded)
- The whistle signal is not distinct with intensity and duration.
- Whistle signal is not initiated at the quarter mile in advance of crossing if operating at 44 mph or greater
- Whistle signal is not initiated in time to allow for 20 second warning before entering the crossing (if operating at 44 mph or less)
- Headlight is not on full power from at least a quarter mile in advance of the crossing
- If the ditch lights are not illuminated from at least a quarter mile in advance of the crossing.

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<th>Rule(s):</th>
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<tr>
<td>CROR 13 (a)(iv) Engine Bell</td>
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<tr>
<td>CROR 14 Engine Whistle</td>
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<tr>
<td>CROR 17 (a) Headlight</td>
</tr>
<tr>
<td>CROR 19 Ditch Lights</td>
</tr>
</tbody>
</table>

**Hint:** Location of anti-whistling bylaws and/or quiet zones are identified in the Timetable Subdivision Footnotes.

**Remember:** These rules apply to public crossings at grade. There may be other crossings identified in the Timetable that are not public crossings which this rule applies.

Whistle posts are very important; ensure that Engineering forces on the territory are advised immediately if there are public crossings not properly marked with “whistle post” / “Anti-Whistle” posts

It is not a an at risk behaviour if the whistle signal 14(l) has to be repeated account engineer misjudges the 20 second in advance

The requirement of the headlight illuminated at full power and subsequently the ditchlights illuminated one quarter mile in advance of the crossing is contained in a General Notice. Train Crews will argue that they may impact the vision of trains operating against them and thus should not have lights on full power. Rule 17 (a) takes precedent to rule 17 (b)

**Remember:** that the requirements of rule 103, 103.1 are also applicable at crossings.
4.24 Public Crossings at Grade with Warning Devices

Static Observation

Purpose: To ensure that crews comply with operating rules when approaching and proceeding over crossings with AWD when switching, proceeding on a pass stop or entering the main track. The systems in place do not properly activate crossings when there are exceptions to the method of operation of a movement. It is therefore important to ensure that train crews are aware of these exceptions for their own safety and for the safety of people using the crossings.

Description: PUBLIC CROSSINGS AT GRADE WITH WARNING DEVICES.

At Risk Defined: Operating Crews have demonstrated an at risk behaviour if:

1) After a movement passes over any public crossing at grade equipped with AWD, before making a reverse movement, the crossing is not manually protected.

2) A main track movement exceeds 10 MPH approaching and within 300 feet of a public crossing at grade until it is fully occupied when:
   - Stopped or switching in the vicinity (1/4 mile or less) of the crossing,
   - Entering the main track in the vicinity (1/4 mile or less) of the crossing,
   - Authorized to pass a block signal indicating stop which is within 300 feet, of the crossing*, or
   - Operating on other than main track over a public crossing (CROR 103.1 (c)). – This is not applicable on Subdivision Track

3) Movement operating on a pass stop authority does not approach AWD equipped crossings at 15 mph or less until it is known the protection has been working for 20 seconds. (except the first crossing if it is within 300 feet of the entrance signal when the speed is 10 mph)

4) When using a push button activation of AWD, the movement enters the crossing before the warning devices have been working for at least 20 seconds.

In addition, the warning devices must have been operating for at least 20 seconds before the crossing is occupied. By use of radar/Ladar equipment distance measurement and a watch, observance for compliance in such circumstance can be achieved. Failure in any of the required elements constitutes an at risk behaviour.

Critical Rule: Rule 103.1 (b) and (c) Public Crossings at Grade with Warning Devices

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<th>Rule(s):</th>
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<tr>
<td>CROR 103.1 Public Crossings at Grade with Warning Devices</td>
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</table>

Remember: Rule 103 has many exceptions to the base crossing rule. You should take your time and read the rule as well as subdivision footnotes and determine where and when the various applications are used on your territory.
4.25 Radio Broadcast Requirements

Static Observation

**Description:** RADIO BROADCAST REQUIREMENTS

**Purpose:** To observe the crews understanding of radio broadcasts requirements. This rule ensures that the train crew is aware of their location, are calling signals and also giving warning to any employees who may be on other trains or who are working near the track in advance of the movement.

**Protocol:** Observing Officer will monitor movement radio broadcasts at locations where operating employees are required by rule (CROR 315 and CROR 578) to make radio transmissions to the “airwaves”.

Where applicable in CTC territory a member of the crew must broadcast (call-out) on the designated stand by channel the signal indication of the advance signal to the next controlled location or interlocking.

In CTC territory a broadcast must also be made when:

- Entering CTC at a location other than from a siding
- At each mile post where the whole mile ends in (5)

In OCS territory, the broadcast is required when:

- Entering OCS at a location other than from a siding
- At each mile post where the whole mile ends in (5)

**Critical Rules:** Rule 121(a) – Positive Identification (Radio); Rule 314 – Radio Broadcast Requirements (NOTE: See SSI for Western Canada) (OCS); Rule 577 – Radio Broadcast Requirements (CTC) (NOTE: See RSI)

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<td>CROR 121 Positive Identification</td>
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<tr>
<td>CROR 315 OCS Radio Broadcasts (SI)</td>
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<td>CROR 578 CTC Radio Broadcasts (SI)</td>
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</table>

Popular misconception is that the employee must use radio terms “over” and/or “out”. CROR 120 is not applicable as this is a transmission to the “airwaves” and not to any individual. The term over is not required as there is no response required and the word “out” is not required as the intention of not expecting a response is already made.

**Remember:** Review Subdivision Footnotes and Regional Special Instructions as CROR 578 may or may not be applicable in multi track territory or other locations.
4.26 Hand Operated Main Track Switches (High Stand)

**Static Observation**

**Purpose:** To ensure that employees properly operate a switch preventing injury and to ensure cars are moved safely along the intended route.

**Protocol:** Observing Officer will observe a crew member handling a hand operated switch on the main track. Switch points and target are observed after being turned, that the switch is secured with the keeper or lock and not left dangling. The switch after being used must be returned to normal position, unless otherwise specifically authorized, and locked. Observe that the employee handling the switch communicates with another rules qualified employee as to the position in which the switch has been left lined and locked when leaving the switch. (CROR 104 (Q) ONLY IN OCS)

**At Risk Defined:** The crew has demonstrated an at risk behaviour if:

- Employee does not conduct a general visual inspection of the switch components to ensure no obstructions which may render the switch inoperative.
- Employee does not to properly position body, bend knees or keep back straight while lifting handle.
- Employee does not reposition feet to a point between the switch ties.
- Employee does not use 2 hands to operate switch, does not have secure footing and fails to pull the switch handle across the top plate and into the opposite notch.
- Employee uses foot, stands on or pushes switch handle across the top of the switch plate.
- Employee does not reposition for final movement of pushing down on the handle until it is fully inserted in the retaining notch.
- Employee does not replace the lock in the keeper.
- Does not observe switch and points after operating the switch.
- Does not perform Point and Call after lining the switch.

**Critical Rules:** Rule 104(a) Hand Operated Switches (operation of switches); Rule 104(b) – Hand Operated Switches (secured with lock); Rule 104(d) – hand Operated Switches (communication); Rule 104 (e) – Hand Operated Switches (damaged or broken); Rule 104 (g) Notes (i) – Hand Operated Switches (points/target)

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<td>CROR 104 Hand Operated Switches</td>
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**Remember:** When the employee does the initial check for obstructions, the employee is looking for packed ice, mounds of grain or other lading, ballast etc, around the rods or completely encompassing the switch mechanism.

When initially lifting handle, the employee does not have to use both hands BUT must remain clear of possible recoil and must reposition feet before operating switch with BOTH hands.

Employees cannot push the switch handle across the top plate however they can push the handle down into the notch.

Employees cannot stand on or kick the switch handle at any time in the process. If a switch is too difficult to throw, the employee should request assistance from other employees or contact the RTC and report the switch as requiring service.
4.27 Inspecting Passing Trains

**Static Observation**

**Purpose:** To ensure that employees are complying with CROR 110 and inspecting passing trains which may prevent damage, injury or possible derailments or other accidents.

**Protocol:** At a meet location between trains observe that the crew members (at least 2) of the standing train take up a position on the ground on both sides of the track to observe the condition of equipment in the passing train. Observing Officer must also listen that the results are broadcasted.

**At Risk Defined:** The crew has demonstrated an at risk behaviour if:

- At least 2 employees are not on the ground in a position on each side of the track (duty and terrain permitting)
- Does not broadcast the results of the inspection to the passing movement.

**Critical Rules:** Rule 110 – Inspecting Passing Trains and Section 8 Item 4.3 – Personal Protective Equipment

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<tr>
<td>CROR 110 Inspecting Passing Trains and Transfers</td>
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**Remember:** Crews on passenger trains are exempt EXCEPT when standing at meeting points in single track territory.

A Trainee is not considered as an employee in the application of this observation. The trainee must be with the employee training them as per GOI 8 3.1(b)

The radio broadcast following the inspection is not a communication and thus the Crew is not required to state "over/out" as would be required in a communication. The crew on train inspected may be talking with RTC and not on channel. It is not considered an at risk behaviour if the crew does state "over or out" as prescribed by CROR 120.
4.28 Speed of Train

Static Observation

**Purpose:** To ensure that operating crews are complying with posted speeds and temporary speed restrictions. Excessive speed does not only result in accidents but also contributes to damage to rail and roadbed.

**Protocol:** Take up an unobserved position and with the use of a radar or LIDAR gun monitor the speed of trains for compliance with posted and or otherwise imposed maximum speed limits for the train or engine. Optimally the location should be where there is a change in speed to a lower rate of speed is required (e.g. slow order, crossover). Event recorder download data may be utilized in the performance of this test.

**At Risk Defined:** The crew and at risk behaviour if they are found to be operating a speed in excess of the posted speed or speed restrictions as contained in GBO or equipment handling restrictions. The following tolerance level should be considered as compliant: 10% over-speed, to a maximum of +4 MPH, whichever is less.

**Critical Rules:** Rule 43(a) – Slow Track Protection; GOI 2.3 and 2.4 – Permissible Speed Signs (Zone/PSO compliance); Rules 405 to 429 – Block and Interlocking Signals; Definition – Speeds; 1.5 Loc. Eng. Manual - Speedometer

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<td>CROR 33 Speed Compliance</td>
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<td>CROR 405 -429 Block and Interlocking Signals</td>
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<td>CROR 43 Slow Track Protection</td>
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<tr>
<td>CROR Definition Speeds</td>
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<tr>
<td>CN 8960 Section A 1.5 Check All Gauges, Displays and Readouts.</td>
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</table>

**Remember:** The speed limit applies until the entire train has cleared the speed restriction.

The speed of a movement may be further restricted by equipment type, signal indication, TSO. Observing Officer should review, GBO’s, be aware of signal indications and review train journals (WOPRT) for such restrictions.

**Movements Handling:**

- Special Dangerous are restricted to 35 mph as indicated in Timetable Footnotes.
- Key Trains restricted to 50 mph.

When reporting test the results ensure that both the permissible and actual speeds are noted. Know your signal indications and the speed that they convey.

**Hint** – have access to SRS /TOPC with Air Card and observe SRS journals for movements to determine if there are speed restricted cars on train.
4.29 Key Train and Higher Risk Key Trains

Static Observation

**Purpose:** To ensure crew members comply with the Key Train and Higher Risk Key Train protocols. These established conditions which identify a train as a Key Train or Higher Risk key train, apply on Main Track and in Sidings and have specific instructions for each (see complete Instruction on Key Train and Higher Risk Key Train operation).

**Protocol:** Obtain consist/journal of Key Train / Higher Risk Key Train to be observed. Take up a position and with the use of a Radar or Lidar gun, monitor the speed of train/(s) for compliance with the requirement of not exceeding the 50 MPH speed restriction.

OR

Pick a siding location (posted speed of 10 MPH or less) where the Key Train is to meet an opposing train. Observe if the Key Train holds the main track or takes the siding.

**At Risk Defined:**

- Key Train and Higher Risk Key Train exceeds 50 MPH.
- Key Train and Higher Risk Key Train operates into a Siding with a posted speed of 10 MPH or less.
- Key Train and Higher Risk Key Train operating with plain bearing cars.

**Hint:** Gather information on train prior to its arrival such as, the criteria that made it a Key Train / Higher Risk Key Train, train length, opposing train lengths, maximum speed in sidings. Obtain a LINEUP of trains on that Subdivision. Bring a Radar or Lidar gun to capture train speed.

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<tr>
<td>Dangerous Goods 9.0 Key Trains and Higher Risk Key Trains</td>
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</table>
4.30 Train List Integrity – Dangerous Goods

Static Observation

Description: Movements operated on the main track must, when dangerous goods are present in the train consist, be properly marshalled, be accurately manifested / recorded on the train list (WOPRT) and be accompanied with proper documentation. These requirements and the critical components of this observation are mandated by Regulation as per the Dangerous Goods Section of the CN Operating Manual as follows:

- Section 3.0: Documentation
- Section 4.0: Train Consists
- Section 6.0: Marshaling

Protocol: At train make-up locations obtain a copy of the train list (WOPRT) provided to the out bound train crew.

Before the train departs:

- Scrutinize the list to ensure no marshalling restrictions have been missed, and
- Meet face to face with the Conductor and ensure proper documentation is present.

As the train departs, or if a visual inspection of the train can be made prior to departure, verify that the physical make-up of the train coincides exactly with the provided train list, i.e. the physical order of cars in the train coincides with the list.

Arriving or en-route trains can also be observed to ensure compliance is present and has been achieved as the train was operational, by means of obtaining a copy of the WOPRT from the operating crew and checking their documentation ‘bundle’.

Observation Results:

If all three critical aspects of the observation are completely adhered with and correct, the observation will be identified as compliance achieved.

If any of the three aspects is not fully compliant, that specific critical component should be identified as non-compliant and this will generate an overall non-compliant observation. Corrective action must be taken immediately to correct the non-compliance and root cause correction initiated to prevent recurrence.

At a crew change point or at a destination station for a movement that has completed work on line (set off or pick up). Observing Officers observes the Train List The crew is in compliance if the cars that are picked up are properly notated on a list in order and indicated on the WOPRT/Train journal where the cars are located. For a train entering the United States, the car numbers must be noted on the train journal (WOPRT). That the cars are properly marshaled in regards to Dangerous Goods Marshalling item 6.0

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<th>Rule(s):</th>
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<tr>
<td>TDG 3.0 Documentation</td>
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<tr>
<td>TDG 4.0 Train Consists</td>
</tr>
<tr>
<td>TDG 6.0 Marshaling</td>
</tr>
</tbody>
</table>
4.31 Locomotive Event Recorder

Static Observation

**Purpose:** To observe the actions of the locomotive engineer to ensure adherence to rules and safe operating procedures.

A Locomotive Event Recorder download can provide an extremely large amount of information.

**Protocol:** Investigating officer must be familiar with the operation of a locomotive and how to read an event recorder download. Observing Officer will review download and determine if locomotive Engineer is operating movement in compliance with CROR and Operating Instructions.

**At Risk Defined:** The crew has demonstrated an at risk behaviour:

If they are found to be operating a speed in excess of the posted speed or speed restrictions as contained in GBO or equipment handling restrictions. If there is aggressive train handling

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<th>Rule(s):</th>
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<td>8960 - Section G1.2 Train Handling Policy</td>
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<td>8960 - Section G2.11 Use of Independent Brake</td>
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<td>8960 - Section G1.12 Use of Dynamic Brake</td>
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<tr>
<td>8960 - Section G3.7 Running Release of Automatic Brake</td>
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Downloads can be done while the locomotive is in operation. This allows for a real time analysis of how the train is being operated.

**Remember:** You must review the Train Journal (WOPRT) to determine if there is any speed restricted equipment on the train

Observing Officer must also have a copy of the TGBO or DOB to determine if there are any GBO’s with speed restrictions OR if any GBO’s have been removed or cancelled. Also remember that train length is also important especially when undertaking a running release. If a movement is between 6500 and 9000 feet and speed is less that 15 mph, a running release must not be completed. Similarly if a movement is greater than 9000 feet in length and speed is less than 20 mph, then the running release must not be completed. In other words the train must stop...

If a movement is found to be operating at faster than maximum speed for the subdivision, and this is found in a real-time download, the crew must be advised as soon as possible by a company officer. DO NOT REALY THIS INFORMATION THROUGH A RTC.

If Speed violations are found an SLE must be contacted and a calibration done on the wheels size to validate the information on the event recorder.

**Hint:** Observing Officer must be familiar with Train Handling Practices – Section G of CN 8960. Review this section frequently while analyzing the Download information.

Know your territory, you can determine if a train is stopping correctly or starting correctly as determined by the track profile.

Movements equipped with Distributed Power will also have a bearing on how the operator will be handling the train and locomotives.
4.32 Leaving Locomotive Consists

Static Observation

Purpose: Leaving a locomotive requires a number of procedures and policies. Locomotives must be shut down for fuel conservation, or to prevent damage to the locomotive. The location a locomotive is left is for security reasons (derails in place) environmental protection so that surrounding ground is not contaminated. Finally when shut down, further damage is prevented when the locomotive cooling system is drained. It is therefore important that locomotive engineers are tested to ensure that they can properly shut down a locomotive when required and that locomotives are left at the correct location.

Designated tie-up tracks, other than attended shop tracks, have been identified for placement of unattended locomotive(s). The location of such tracks will be indicated in the timetable subdivision footnotes or in special instructions. These tracks are equipped with derails to provide security against unauthorized movement.

Unless otherwise directed, locomotives left unattended must be placed on a designated tie-up track.

At Risk Defined: The crew has demonstrated an at risk behaviour if:

- 538-D is not completed
- Handbrake is not applied
- Handbrake on locomotive is not tested (must observe this)
- Locomotive is not shut down (ambient temperature will not go below 5 degrees Celsius)
- Locomotive control positions are not in correct position (B2.4)
- If temperature is below minus 20 degrees Celsius, the throttle must be left in 3 unless equipped with Low/high idle feature see B3.2.1)
- Doors and windows are closed and locked.
- Reverser left on Locomotive.

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<tr>
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<tr>
<td>GOI 6.9 Securing Beltpack</td>
</tr>
<tr>
<td>8960 B 3 Locomotive Shutdown Policy</td>
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</table>

Remember: Locomotives equipped with Smart Start or ESS and also Locomotives equipped with Air Start (GM Sd70M) are not to be shut down.

There are a number of items to be addressed when leaving a locomotive. Review Item B2 and B3 of the CN form 8960.

Check local operating instructions on locomotive Securement which may have further requirements.
4.33 Rule 85 Track Release Reports

Dynamic Observation

Purpose: To determine if operating crews record track release reports and the Locomotive Engineer confirms it from the recorded information during the confirmation process. The Chief RTC may also conduct a RTC test to determine if the RTC is following the RTCM process.

Protocol: Prior to boarding a train, the observing officer will arrange, through the Chief RTC for the RTC to contact the enroute movement and request a track release from the crew.

When the track release is requested by the RTC, the officer will observe the crew members during the track release process. When providing a track release report as per Rule 85, the location and time must be recorded by any one of the crew members before transmitting the report to the RTC. Movement designation is not required to be recorded but is still required to be transmitted. During the confirmation process, the engineer needs to review and confirm the information repeated by RTC by using the written information.

At Risk Behaviour:

- Conductor does not confirm with other crew member the accuracy of the information.
- No employee records it.
- During the confirmation process with the RTC, the recorded information is not in the possession of the Locomotive Engineer to reference.
- The Locomotive Engineer does not confirm information to the RTC.

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<td>CROR 120</td>
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<td>CROR 121</td>
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Remember Information can be recorded on the clearance, other authority, document or piece of paper and must be provided to the Locomotive Engineer for reference during the confirmation process.

Hint- You may combine this test with a test of the RTC. To do this, request the Chief RTC also perform a test of the RTC when you call to request the track release.
4.34 Regulating Transmission Speed for Compliance

**Dynamic Observation**

**Purpose:** To ensure employees are complying with written procedures when copying GBOs, clearances or other authorities.

**Preparation/Conditions:**
- Review the General Procedure rules and rule 132(c) in particular
- Contact the Chief Rail Traffic Controller and request issuance of a GBO, clearance or authority in the manner described below.
- Position yourself to observe the employee copying.
- The RTC Chief must be with the RTC during the observation.

**Dynamic:**
The Observing Officer will contact the Chief RTC prior to performing this observation. The Chief RTC will instruct the RTC to issue a GBO, clearance or other authority to the operating crew in a slightly modified manner. The issuance will be transmitted at a regular speed but without a pause, in one continuous sentence until the contents have been transmitted.

**Procedure:**
Observe the employee copying to ensure they do not perform an at risk behaviour.

**At Risk Behaviour:**
- The employee pre fills any part of the form
- The employee copying uses unapproved abbreviations on the form.
- The employee partially writes words or numbers and begins to repeat while filling in the missing information.
- The employee does not make a required copy, if applicable.

**Note:** If the crew demonstrates an at risk behaviour, the Observing Officer and Chief RTC must ensure any mistakes are corrected and that there is no misunderstandings with respect to GBO, clearance or other authority which were issued.

**Constructive Coaching Session:** Remind employees that they can regulate the speed of transmission to ensure compliance. They can request the information to be issued again at a slower speed. They may also ask for a repeat of any missed information (items) and correctly add it to the form.

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4.35 Critical Focus Zone Compliance

**Dynamic Observation**

**Purpose:** To ensure operating crews remain focused while operating in a Critical Focus Zone.

**Hint:** Review the GBOs for the territory. This will ensure that the Company Officer is aware of all Rule 42 and Rule 43 locations.

**Observation 1**

**Procedure:** When it is known that the movement is operating within a CFZ, the Company Officer will attempt to call the crew on the radio. If the crew answers without advising “In a CFZ, standby” or similar response, the Company Officer will instruct the crew to refocus on their upcoming restriction. Once the movement is no longer in a CFZ or the movement has stopped, the Company Officer will provide the appropriate feedback to the crew.

**Observation 2**

**Procedure:** When it’s known that the movement is operating within a CFZ, the Company Officer will ask a question unrelated to the train’s immediate tasks or operation. If the crew answers without advising that they’re “in a CFZ” or similar response, the Company Officer will instruct the crew to refocus on their upcoming restriction. Once the movement is no longer in a CFZ or the movement has stopped, the Company Officer will provide the appropriate feedback to the crew.

Monitor the Conductor to ensure they confirm with the Locomotive Engineer about where the train must stop, if applicable.

**At Risk Behaviour:**

- If the crew responds with anything other than, “We’re in a CFZ,” or similar response or;
- the Conductor does not confirm with the Locomotive Engineer about where the train must stop, if applicable (Conductor must do this no less than 1 mile from the stop)

**Remember:** The purpose of the Critical Focus Zone is to reduce/eliminate distractions approaching a potentially hazardous situation. Therefore, it's crucial that the Company Officer instructs the crew to refocus on the upcoming restriction as soon as the crew responds with anything other than “In a CFZ” or similar response. If a confirmed stopping location is required and the Conductor has not confirmed with the Locomotive Engineer, the Company Officer must intervene by ensuring a stopping plan is made.

**Rule(s):**

CROR 34 Fixed Signal Compliance Special Instruction
5.0 OTHER OBSERVATIONS

5.1 Conduct DTL Delivery Vehicle Inspection

**Description:** Conduct DTL Delivery Vehicle Inspection:

- Hose nozzle has auto shut-off mechanism
- Hose nozzle has a splash guard.
- Delivery personnel has flashlight
- Bucket / pail for catching fuel drips
- Shovel
- Absorbent material
- Containment boom(s)
- Impermeable storm drain cover
- Personal protective clothing

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<td>DTL 2.8 Impermeable Storm Drain Cover</td>
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<tr>
<td>DTL 2.9 Personal Protective Clothing</td>
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</tbody>
</table>
5.2 Conduct DTL Fuelling Inspection

**Description:** Conduct DTL Fuelling Inspection:

- Loco fuelled in designated DTL location
- Checked gauge/sight glass for fuel volume
- Loco tank vent cleared
- Checked loco fill pipe cap on opposite side
- Checked piping & hose for cracks & leaks
- At the hose nozzle during fuelling
- No overfilling (>2" in sight glass)
- Nozzle drained for >10 sec after fueling
- Fuel drips caught in a pail
- No spillage occurs during DTL fuelling

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<tbody>
<tr>
<td>DTL 1.1 Loco Fuelled in Designated DTL Location</td>
</tr>
<tr>
<td>DTL 1.10 No Spillage Occurs During DTL Fuelling</td>
</tr>
<tr>
<td>DTL 1.2 Checked Gauge and Sight Glass for Fuel Volume</td>
</tr>
<tr>
<td>DTL 1.3 Loco Tank Vent Cleared</td>
</tr>
<tr>
<td>DTL 1.4 Checked Loco Fill Pipe Cap on Opposite Side</td>
</tr>
<tr>
<td>DTL 1.5 Checked Piping and Hose for Cracks and Leaks</td>
</tr>
<tr>
<td>DTL 1.6 At the Hose Nozzle During Fuelling</td>
</tr>
<tr>
<td>DTL 1.7 No Overfilling (&gt;2&quot; in sight glass)</td>
</tr>
<tr>
<td>DTL 1.8 Nozzle Drained for &gt;10 Sec After Fueling</td>
</tr>
<tr>
<td>DTL 1.9 Fuel Drips Caught in a Pail</td>
</tr>
</tbody>
</table>
5.3 Contractor Safety Monitoring

Description:
- PPE
- Track Protection
- Unsafe Act
- Approved Sticker

<table>
<thead>
<tr>
<th>Rule(s):</th>
</tr>
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<tbody>
<tr>
<td>CSM - A PPE</td>
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<tr>
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<tr>
<td>CSM - C Unsafe Act</td>
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