

APPENDIX

Railway (Alberta) Act

INDUSTRIAL RAILWAY REGULATION

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Interpretation

1(1) In this Regulation,

- (a) “Act” means the *Railway (Alberta) Act*;
- (b) “competent”, in relation to an employee, means that the employee, in the opinion of the employer,
 - (i) is adequately qualified, having a degree, diploma or certificate appropriate to the work the employee performs,
 - (ii) is suitably trained, having received a health and safety orientation, specific work-related instructions and on-the-job training, and

- (iii) has sufficient experience, having worked under direct supervision and having demonstrated, through performance, the ability to perform work safety without supervision or with minimal supervision;
- (c) “contractor” means a person or company contracted to carry out one or more of the functions or duties of an industrial railway operator under this Regulation;
- (d) “employee” means a person employed by or acting on behalf of an industrial railway operator, and includes an employee of a contractor;
- (e) “industrial railway operator” or “operator” means a person to whom section 2 of the Act applies in respect of an industrial railway;
- (f) “person in charge” means a person responsible for ensuring the safe conduct of the work of employees.

(2) In this Regulation, a reference to a rule approved under the *Railway Safety Act* (Canada) is a reference to the rule as it read on the coming into force of this Regulation.

Application

2 This Regulation applies to industrial railways.

Operator responsible for work of contractors

3 If an industrial railway operator contracts with a person or company to carry out one or more of the functions or duties of the operator under this Regulation, the operator shall ensure that the contractor complies with this Regulation as if the contractor were the operator.

Part 1 Industrial Railway Rules and Standards

Industrial Railway Operating Rules

4 The *Canadian Rail Operating Rules* (TC O-093), approved by the Minister of Transport (Canada) under the *Railway Safety Act* (Canada), as modified for the purposes of this Regulation and contained in Schedule 1 as the *Industrial Railway Operating Rules*, are declared in force.

Industrial Railway Locomotive Inspection and Safety Rules

5 The *Railway Locomotive Inspection and Safety Rules* (TC O-0-76), approved by the Minister of Transport (Canada) under the *Railway Safety Act* (Canada), as modified for the purposes of this Regulation and contained in Schedule 2 as the *Industrial Railway Locomotive Inspection and Safety Rules*, are declared in force.

Industrial Railway Rail Car Mover Inspection and Safety Rules

6(1) In this section, “rail car mover” means a rail vehicle, other than a locomotive, propelled by any energy form intended for the propulsion or control of freight or service equipment.

(2) An industrial railway operator that operates a rail car mover shall ensure that the rail car mover is inspected and maintained in accordance with the *Industrial Railway Rail Car Mover Inspection and Safety Rules* set out in Schedule 3.

Industrial Railway Freight Car Inspection and Safety Rules

7 The *Railway Freight Car Inspection and Safety Rules* (TC O-06-1), approved by the Minister of Transport (Canada) under the *Railway Safety Act* (Canada), as modified for the purposes of this Regulation and contained in Schedule 4 as the *Industrial Railway Freight Car Inspection and Safety Rules*, are declared in force.

Industrial Railway Rules Respecting Track Safety

8 The *Rules Respecting Track Safety* (TC-E-04.2), approved by the Minister of Transport (Canada) under the *Railway Safety Act* (Canada), as modified for the purposes of this Regulation and contained in Schedule 5 as the *Industrial Railway Rules Respecting Track Safety*, are declared in force.

Industrial Railway Crossing Rules

9 An industrial railway operator shall ensure that it complies with the *Industrial Railway Crossing Rules* set out in Schedule 6.

Industrial Railway Transfer of Dangerous Goods Rules

10 An industrial railway operator shall ensure that it complies with the *Industrial Railway Transfer of Dangerous Goods Rules* set out in Schedule 7.

Industrial Railway Employee Qualifications Standards

11 An industrial railway operator shall ensure that it complies with the *Industrial Railway Employee Qualifications Standards* set out in Schedule 8.

Industrial Railway Safety Critical Positions Rules

12 An industrial railway operator shall ensure that it complies with the *Industrial Railway Safety Critical Positions Rules* set out in Schedule 9.

Industrial Railway Medical Rules for Positions Critical to Safe Industrial Railway Operations

13 An industrial railway operator shall ensure that it complies with the *Industrial Railway Medical Rules for Positions Critical to Safe Industrial Railway Operations* set out in Schedule 10.

Part 2 Consequential, Expiry and Coming into Force

Consequential

14 The *Railway Regulation* (AR 177/2002) is amended

- (a) in the title by adding “PUBLIC” before “RAILWAY”;
- (b) by adding the following after section 1:

Application

1.1 Except to the extent that it is inconsistent with the *Industrial Railway Regulation*, this Regulation applies to industrial railways.

Expiry

15 For the purpose of ensuring that this Regulation is reviewed for ongoing relevancy and necessity, with the option that it may be repassed in its present or an amended form following a review, this Regulation expires on December 31, 2019.

Coming into force

16 This Regulation comes into force on January 1, 2010.

Schedule 1

Industrial Railway Operating Rules

1 General Notice

1.1 Safety and a willingness to obey these Rules are of the utmost importance in the performance of duty. If in doubt, the safe course must be taken.

1.2 An industrial railway operator shall develop and maintain general operating instructions in respect of its railway operations using the *Industrial Railway Regulation* as a guideline. General operating instructions must not contain instructions for anything other than a rail operation.

2 General Rules

2.1 Every employee in any service connected with rail car movements and protection of track work and track units shall

- (a) be subject to and conversant with these Rules, general operating instructions and all operating procedures pertaining to the employee's occupation,
- (b) have access to a copy of these Rules and the general operating instructions while on duty,
- (c) provide every possible assistance to ensure that every rule and general operating instruction is complied with and shall report promptly to the person in charge of rail operations any violations of these Rules,
- (d) communicate by the quickest available means to the person in charge of rail operations any condition that may affect the safe movement of an engine or rail car and be alert to the industrial railway operator's interest, and join forces to protect it,
- (e) obtain assistance promptly when required to control a harmful or dangerous condition,
- (f) be conversant with and governed by every safety rule and instruction of the industrial railway operator pertaining to the employee's occupation,
- (g) recertify based on job classification at prescribed intervals not to exceed 3 years, and

- (h) seek clarification from the person in charge of rail operations if in doubt as to the meaning of any rule or instruction.

2.2 Special instructions will be found in general operating instructions or operating bulletins. They may be appended to or included within copies of these Rules, but must not contravene these Rules unless the Railway Administrator has granted an exemption.

2.3 Employees must

- (a) be vigilant to avoid the risk of injury to themselves or others,
- (b) expect the movement of equipment or a track unit at any time, on any track, in either direction,
- (c) not stand in front of approaching equipment for the purpose of boarding the equipment,
- (d) not ride the side or above the roof of moving equipment when there are passing side or overhead restrictions, or both,
- (e) not be on the roof of moving equipment or on the lading of a moving open top rail car,
- (f) not be on the end of a rail car while it is in motion, except for the purpose of operating a handbrake, and
- (g) not ride on
 - (i) any rail car known or suspected to contain a shifted load or to be damaged such that its structure or components may not be secure, or
 - (ii) any rail car trailing a freight car described in subclause (i).

Note: In the case of a shop track or rip track, it may be necessary for an employee to ride on equipment that has been damaged, but only when all precautions have been taken to ensure safety and no person is in a position of peril.

2.4 Employees must be acquainted with, and be on the lookout for, side and overhead clearances. Where standard restricted clearance signs are used, no other advice of restricted clearance will

elsewhere or otherwise be given. If standard restricted clearance signs are not provided in a yard or terminal, the location of the restricted clearance must be shown in general operating instructions.

2.5 The use or possession of intoxicants or narcotics by employees on duty or subject to duty is prohibited.

2.6 The use or possession of mood-altering agents by employees on duty or subject to duty is prohibited except as prescribed by a doctor.

2.7 The use of drugs, medication or mood-altering agents, including those prescribed by a doctor, that will in any way adversely affect an employee's ability to work safely is prohibited.

2.8 Employees must know and understand the possible effects of drugs, medication or mood-altering agents, including those prescribed by a doctor, that will in any way adversely affect their ability to work safely.

2.9 Employees directly involved with rail operations are governed by the drug and alcohol policies of the industrial railway operator.

2.10 Wherever the following occupational names or titles appear in these Rules or general operating instructions, they apply to the employee who is competent and is responsible for performing the duties of that person:

brakeman;
foreman;
groundman;
engine operator;
flagman;
switchman.

2.11 When in these Rules the distance prescribed for the placement of signs or flags is not possible due to track configuration, the maximum distance available applies.

2.12 All flags, signs and signals referred to in these Rules must meet the applicable standards prescribed by Transport Canada.

3 Definitions

3.1 In these Rules,

- (a) "crossover" means a track joining adjacent main tracks, or a main track and another track. The switches at both ends

of a crossover are normal when set for through movements on the other tracks;

- (b) “engine” means a locomotive, rail car mover, winch or other equipment used to move rail cars;
- (c) “engine operator” means a person who operates an engine or other equipment that moves rail cars;
- (d) “equipment” means one or more engines or rail cars or track units that can be handled on their own wheels in a movement;
- (e) “facing point” means a switch location where the equipment is facing the switch points. Facing point movements have a high likelihood of resulting in derailment if the switch point is not tightly closed when set for the proper route;
- (f) “fixed signal” means a signal or sign at a fixed location indicating a condition affecting the operation of a movement;
- (g) “foul” means equipment left in the area where 2 tracks come together in a position where it could be struck by equipment moving on the other track (sideswiped). The term “foul” also describes a situation where derailed equipment is located adjacent to a parallel track in a position where it could be struck by equipment moving on the other track;
- (h) “fouling point” means a location in a trailing point movement in the vicinity of a switch where standing equipment will not be struck by movements passing on other tracks;
- (i) “general operating instructions” means a document prepared by an industrial railway operator containing plant-specific descriptive information, approved site-specific procedures and special instructions relating to a rail operation;
- (j) “industrial railway crossing” means a road crossing located within an industrial site identified with crossing signs or stop signs, or both;

- (k) “known to be clear” means the seeing of the portion of the track to be used as being clear and remaining clear of equipment and as having sufficient room to contain equipment being pushed. This determination must be made by a competent employee who can observe the track and has radio contact with the employee controlling the movement. Where a track has been seen to be clear, and no access to that track is possible by another movement, the track may be considered as “known to be clear”;

When it can be determined that other movements are not on duty or will not be performing work in the track to be used, the requirement of “known to be clear” can be considered to be fulfilled continuously;

- (l) “main track” means a track that is owned or operated by a person other than an industrial railway operator that is governed by one or more methods of control on which movements, track units and track work must be authorized;
- (m) “operating bulletin” means a bulletin prepared by an industrial railway operator containing information about a condition that is temporarily affecting an operation or a change to an existing rule or procedure;
- (n) “public crossing” means a road crossing located outside an industrial site;
- (o) “rail car mover” means a rail vehicle, other than a locomotive, propelled by any energy form intended for the propulsion or control of freight or service equipment;
- (p) “reduced speed” means a speed that will permit stopping
 - (i) within 1/2 the range of vision of equipment,
 - (ii) short of a switch not properly lined,
 - (iii) in response to a hand signal,
 - (iv) in response to a red signal as provided for in Rule 12,
 - (v) in response to a derail set in the derail position, and
 - (vi) in response to an unsafe condition,but in no case in excess of 10 mph;

- (q) “route” means the track an engine will use in passing from one location to another;
- (r) “semi-automatic switch” means a yard switch equipped with a mechanism that permits an engine to trail through the switch points thus setting the switch for the route being used;
- (s) “track unit” means a vehicle or machine capable of on-track operation utilized for track inspection, track work and other railway activities when on a track;
- (t) “track work” means any work 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;
- (u) “trailing point movement” means approaching a switch location where the movement is trailing through the switch points. If the switch is not properly set for the route, and equipment moves past the switch points, damage to the switch will occur and the switch must be fixed or “spiked” before making a reverse movement or derailment is likely;
- (v) “yard” means 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;

3.2 When the term “movement” is used in these Rules, it refers to an engine or engines coupled with or without rail cars that are about to operate or are operating on railway track.

Signal Rules

4 Hand signals

4.1 Employees whose duties may require them to give hand signals must have the proper appliances and 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 1: The hand or a flag displayed in the same manner as the lantern, which is illustrated in the following diagrams, gives the same indication.

Note 2: The term “night signals” refers to the use of a railway-approved signal lantern.

Method of Display and Indication

- (i)  Swung from side to side at right angle to the track. STOP
- (ii)  Swung in a circle at right angle to the track at a speed in proportion to the speed required. MOVE BACKWARD
- (iii)  Raised and lowered at a speed in proportion to the speed required. MOVE FORWARD
- (iv)  Held horizontally at arm's length. REDUCE SPEED
- (v) Any object waved violently by anyone on or near the track is a signal to stop.

4.2 A signal given to move forward or move backward must be given in relation to the front of the controlling engine.

4.3 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.

4.4 Whenever practicable, when switching is being performed, required signals must be given directly to the employee controlling the engine.

4.5 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.

4.6 A crew member, whose movement is clear of the main track, shall not give an approaching movement a hand signal to move forward.

4.7 Where hand signals are to be used instead of radio, employees are governed by Rule 33.

5 Engine bell

5.1 The engine bell must be rung when

- (a) an engine is about to move, except when switching requires frequent stopping and starting after the initial move, and
- (b) passing any movement standing on an adjacent track.

6 Engine bell failure

6.1 If the engine bell or audible warning device fails, repairs must be made as quickly as possible.

7 Headlight

7.1 The full power of the headlight or other alternative lighting in the direction of travel must be used when approaching an industrial railway crossing until the crossing is fully occupied.

7.2 On non-main track, the headlight on a movement must be

- (a) displayed at the front and rear of an engine while moving, except that the light may be extinguished on the end coupled to rail cars, and
- (b) displayed at the front while moving forward, except when approaching or being approached by an opposing movement.

7.3 If the headlight on a movement fails and repairs cannot be made, ditch lights or other such lights as are available must be used and the movement may proceed. The person in charge of rail operations must be notified of this condition at the first available opportunity and in no case later than the end of shift. Repairs should be arranged as soon as possible.

8 Blue signal protector

8.1 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 that 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 employee in charge of the engine must be notified before the 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. When so protected, blue signals are not required.

8.2 Other equipment must not be placed on the same track that 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.

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

8.4 Other methods of protecting workmen performing equipment repairs or inspections must be described in general operating instructions.

8.5 Blue flag derails – these derails are used in conjunction with blue flags and must be in the derailing position only when protection for personnel is required. When protection is no longer required, they must be locked in a non-derailing position.

9 Signal imperfectly displayed

9.1 A fixed signal that 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 person in charge of rail operations as soon as

possible. According to the definition of a “fixed signal”, signs and switch targets are considered fixed signals.

10 Fixed signal recognition and compliance

10.1 The crew on the engine of any movement must know the indication of each fixed signal, including switches where practicable, before passing it.

10.2 Crew members within 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 that may occur.

The following signals/operating signs conditions must be communicated:

- stop sign;
- red signal between the rails;
- stop signal displayed by flagman;
- switch not properly lined for the movement affected;
- derail sign and condition of derail;
- blue flag.

10.3 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 employee controlling the engine is observed to be incapacitated, other crew members must take immediate action to ensure the safety of the movement, including stopping it in an emergency if required, and report the incident to the person in charge of rail operations.

11 Emergency protection

11.1 Any employee discovering a hazardous condition that may affect the safe passage of a movement must, by the use of red flags, lights, radio, telephone or other means, make every possible effort to stop or provide necessary instructions, or do both, to any movement that may be affected, and report the hazardous condition to the person in charge of rail operations.

Note: Flag protection must be provided on main track unless or until otherwise relieved of the requirement.

11.2 On a non-main track, 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 one rail car length from the condition to a location where there will be a clear view of the flagman from an approaching movement.

11.3 On a main track, 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 2 miles from the condition to a location where there will be a clear view of the flagman from the approaching movement.

11.4 When a movement is observed approaching, the flagman must display a stop signal using a red flag by day or a red light 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

- (a) acknowledged the stop signal with 2 short toots of the engine whistle,
- (b) come to a stop, or
- (c) reached the location of the flagman.

11.5 A movement stopped by a flagman must not proceed until so instructed by the flagman.

Note: This Rule does not authorize main track movement or track work.

Protection of Impassable or Speed-restricted Track

12 Protection of track work on non-main track

12.1 **Note:** Before any track work is started, the person in charge of rail operations shall provide protection as follows:

- (a) each switch must be locked with a special lock in the position that will prevent a movement from operating on the portion of track where work is to be performed, or an alternative method of protection may be used that will ensure the safety of track workers;

- (b) a red flag must be placed by day, and in addition, a red light must be used by night or when day signals cannot be plainly seen, between the rails in each direction from the working point. When practicable, such signals must be placed at least 100 yards from the working point and where there will be a clear view of them from an approaching movement of 300 yards if possible. When there is equipment on that track that prevents a clear view from an approaching movement of 300 yards, the red signals must be placed to include such equipment. Where the track configuration does not allow the red signals to be seen from an approaching movement of 300 yards, the red signals must be placed at a distance of more than 100 yards from the working point so that they can be seen from an approaching movement of 300 yards.

12.2 The Railway Administrator may reject an industrial operator's alternative method of protection under Rule 12.1(a) if, in the Railway Administrator's opinion, an adequate level of safety has not been achieved.

12.3 A movement approaching a red signal located between the rails of a track must be stopped before passing it and must not proceed beyond such signal until it has been removed. An employee of the same class who placed the red signal or special lock may alone remove it, but only when authorized by the person in charge of rail operations.

12.4 Equipment must not be placed on the track being protected that will block a clear view of the red signals.

12.5 Specific notification procedures of the industrial railway operator must be followed to ensure that employees are aware of track work being performed. This is in addition to the protection requirements of Rule 12.1(a) and (b).

13 Mounting of signals

13.1 When signals are displayed as prescribed by Rule 12, they must be mounted on staffs and elevated to give an unobstructed view of them as seen by the crew of an approaching movement. They must be of the prescribed colour, size and shape.

13.2 When a day signal cannot be plainly seen, each flag must be a reflectorized lens, target or disc, or a reflectorized sign may be used instead. In the application of Rule 12, the required light must be displayed.

Operation of Movements

14 Operating bulletins

14.1 Operating bulletins, when required, must be issued by the person in charge of rail operations in the format prescribed by the industrial railway operator. Employees responsible for posting or displaying operating bulletins shall record on each bulletin the time and date it is posted or displayed. Operating bulletins must only contain information or instructions pertaining to the operation of movements. Duplicate bulletin numbers must not be in effect at the same time.

14.2 Before commencing work at a 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 those employees will operate on.

14.3 A Summary bulletin containing the number, date and contents of, or reference to, each operating bulletin remaining in effect must be issued at intervals indicated in general operating instructions. Operating bulletins of a previous date, which are not included or referred to in the Summary bulletin, then become void. Summary bulletins may also contain the full content of operating bulletins that take effect on or after the effective date of the Summary bulletin and must 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.

15 Starting a movement

15.1 A movement must not take place until the proper signal or instruction is received and acknowledged by the engine operator from a crew member.

15.2 A movement must not take place before the following considerations have been appropriately addressed:

- (a) if a movement cannot be controlled by an engine, the movement must have brake pipe hoses coupled and rail cars sufficiently charged to operate brakes to safely control the movement;
- (b) if equipment is to be moved other than by an engine, the cable hook must be applied only to the approved hook attachment location on the rail car;

- (c) equipment to be moved must have all handbrakes fully released to ensure its wheels are not skidded;
- (d) equipment must only be moved by engines
 - (i) that have an approved coupler, or
 - (ii) by a method or system approved by the Railway Administrator.

16 Stopping clear of fouling point

16.1 A movement required to stop at a meeting, clearing or waiting point with another movement must be stopped clear of the route to be used by another movement.

17 Protection against extraordinary conditions

17.1 A movement must be fully protected against any known or suspected condition that may interfere with its safe passage.

17.2 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.

18 Emergency stop protection

18.1 The crew of a movement stopping as a result of an emergency brake application or other abnormal condition that has caused an adjacent main track to be obstructed must

- (a) immediately provide red flag protection as outlined in Rule 11,
- (b) as soon as possible, advise the service provider for the industrial railway operator affected of the situation and emergency stop location, indicating what tracks are obstructed, and
- (c) continue to provide red flag protection until advised by the service provider that all affected movements on other tracks have been secured, stopped or advised of the emergency stop.

19 Public crossings at grade

19.1 **Note:** This Rule and Rule 20 apply only to a public crossing.

19.2 When rail cars not headed by an engine 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 public crossing is not required if the crossing is equipped with automatic warning devices and a crew member is on the leading rail car to warn persons standing on or crossing or about to cross the track. However, if the public crossing is not equipped with automatic warning devices, the movement must not approach to within 100 feet of any public crossing unless such crossings are protected as described in Rule 20.4 (manual protection).

19.3 Crew members shall not give vehicular traffic a hand signal to proceed over a public crossing.

19.4 Except at those public crossings with an exemption as indicated in general operating instructions, no part of a movement may be allowed to stand on any part of a public crossing at grade for a period longer than 5 minutes when vehicular or pedestrian traffic requires passage. Switching operations at public crossings must not obstruct vehicular or pedestrian traffic for a period longer than 5 minutes at a time. When emergency vehicles require passage, employees must cooperate to quickly clear the involved crossings.

Note: An agreement may be mutually established between the municipal authority and the industrial railway operator extending the time restrictions and must be indicated in general operating instructions.

19.5 Equipment must not be left standing within 100 feet of the travelled portion of a public or private crossing at grade when sightlines around the equipment would impair vehicular traffic's view of equipment moving on an adjacent track, except where it is necessary to leave the equipment for loading or unloading. In cases where equipment is left closer than 100 feet for loading or unloading, manual protection must be provided on adjacent tracks until the crossing is fully occupied.

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

19.7 When providing manual protection of a public 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 red light by night, must be used to give a signal to stop vehicular and pedestrian traffic over the crossing. The movement must not enter the crossing until a signal to enter the crossing has been received from the crew member providing the manual protection.

20 Public crossings at grade with warning devices

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

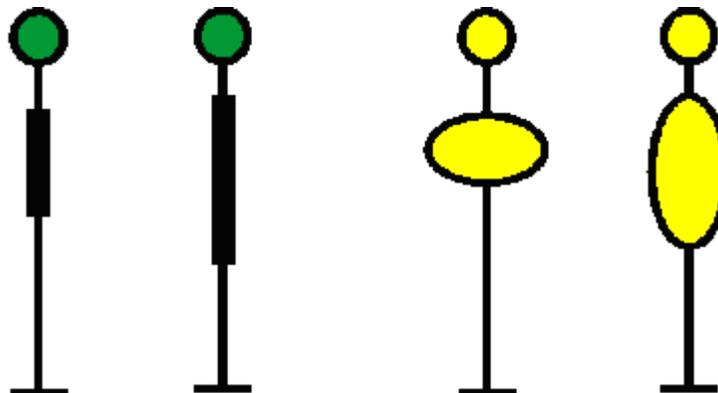
20.2 Unless manually protected, the crossing must not be obstructed until the warning devices have been in operation for at least 20 seconds.

20.3 Equipment must not be allowed to stand so as to cause the unnecessary operation of warning devices.

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

21 Hand-operated switches

21.1 Unless otherwise specified by general operating instructions, non-main track switches, when equipped with a lock, must be lined in normal position and locked after having been used. When equipped with a target, light or reflector, the switch must indicate the following:



NORMAL POSITION

REVERSE POSITION

21.2 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, light or reflector, if any, observed to ensure that the switch is properly lined for the route to be used.

21.3 A switch must not be turned while any part of a rail car or engine is between the switch points and the fouling point of the track to be used.

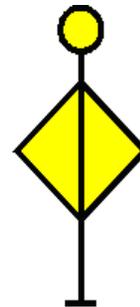
21.4 If it is known or suspected that either of the points or any part of a switch is damaged or broken, the switch must be protected until it can be made safe for use. A report must be made to the person in charge of rail operations by the quickest available means.

22 Semi-automatic switches

22.1 A semi-automatic switch must be equipped with a reflectorized target to indicate the following:



SET FOR NORMAL
ROUTE



SET FOR OTHER
THAN NORMAL
ROUTE

22.2 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 that 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.

22.3 After coupling to equipment at a semi-automatic switch, or when reversing direction through such a 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.

23 Derails

23.1 The location of each derail must be marked by a sign, unless otherwise directed by general operating instructions. Employees must be familiar with the location of each derail.

23.2 A movement or track unit must stop short of a derail set in the derailing position.

23.3 Each derail must be left in the derailing position. When so authorized by general operating instructions, a derail may be left in the non-derailing position only when stored equipment is not present.

23.4 Derails must be left secured with a locking device controlled by the facility when equipment containing dangerous goods is being loaded or unloaded.

23.5 Crew members approaching a derail must communicate the status of the derail (set in derailing or non-derailing position) before moving equipment to within 2 rail car lengths of the derail location.

24 Speed on industrial railway track

24.1 A movement using industrial railway track must operate at reduced speed, not to exceed 10 miles per hour, and be prepared to stop short of the end of track, track units, red signal as provided for in Rule 12, blue signal as provided for in Rule 8, derails not set in the non-derailing position and switches not properly lined for the route to be used or track units.

25 Crew responsibilities

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

26 Securing equipment

26.1 Unless otherwise directed by general operating instructions, a sufficient number of handbrakes must be applied on equipment left

at any point to prevent it from moving. Equipment left on any track must be coupled to other equipment, if any, on such track unless it is necessary to separate such equipment at a public crossing at grade or elsewhere.

26.2 Before relying on the retarding force of the handbrake(s), whether leaving equipment or riding equipment to rest, the effectiveness of the handbrake(s) must be tested by fully applying the handbrake(s) and moving the cut of rail cars slightly to ensure that sufficient retarding force is present to prevent the equipment from moving. When leaving a cut of rail cars secured, and after completion of this test, the cut should be observed while pulling away to ensure that slack action has settled and that rail cars remain in place.

26.3 Application of handbrakes must not be made while equipment is being pulled or pushed.

27 Coupling to equipment

27.1 Before coupling to equipment at any point, care must be taken to ensure that the equipment is properly secured.

27.2 Unless otherwise specified in general operating instructions, before coupling to or moving equipment being loaded or unloaded, all persons in or about the equipment must be notified. Vehicles and loading or unloading devices must be clear.

27.3 When coupling to equipment for any purpose except when flat switching rail cars are intentionally let run free, the coupling must be stretched to ensure that it is secure.

27.4 To prevent by-pass couplers when coupling to equipment on other than tangent track, a stop must be made not less than 6 feet nor greater than 12 feet from the coupling and extreme caution must then be used, ensuring couplers are properly aligned prior to coupling being made.

27.5 After coupling, the equipment must be checked for applied handbrakes as may normally be expected to be present.

28 Fouling other tracks

28.1 Equipment must not be allowed to move foul of another track unless properly protected.

28.2 A movement must not foul a track until the switches connected with the move are properly lined, or in the case of semi-automatic switches, the conflicting route is known to be clear.

Exception: A movement may foul a track connected by a hand-operated switch if

- (a) neither the track occupied nor the track to be fouled are main tracks,
- (b) the conflicting route is known to be clear, and
- (c) the switch is properly lined before the movement passes over it.

28.3 Equipment must not be left foul of a connecting track unless the switch is left lined for the track on which the equipment is standing.

29 Shoving equipment

29.1 When equipment is shoved 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.

29.2 “Known to be clear” is defined as seeing the portion of the track to be used as being clear and remaining clear of equipment and as having sufficient room to contain the equipment being pushed. This determination must be made by a competent employee who can observe the track and has radio contact with the employee controlling the movement. Where a track has been seen to be clear, and no access to that track is possible by another movement, the track may be considered as “known to be clear”.

Note: When it can be determined that other movements are not on duty or will not be performing work in the track to be used, the requirement of “known to be clear” can be considered to be fulfilled continuously.

29.3 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.

Radio

30 Reliability tests

30.1 The crew of a movement when equipped with radios must carry out an intra-crew test of such radios before using these radios to control a movement or provide any form of protection.

31 Continuous monitoring

31.1 When not being used to transmit or receive a communication, receivers must be set to the appropriate channel and at a volume that 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 channel to receive emergency communications.

32 Radio terms

32.1 Each industrial railway operator shall develop and implement a set of radio protocols appropriate for their operations that ensures the safety of the operation.

33 Radio or hand signals

33.1 Before changing from radio to hand signals, a definite understanding as to the method of control 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.

34 Switching by radio

34.1 When radio is used to control switching, and after positive identification has been established, the following procedures are required:

- (a) direction in relation to the front of the controlling engine must be given in the initial instruction and from then on whenever the direction is to change;
- (b) distance to travel must be given with each communication;

Note: Increments of less than 2 rail car lengths need not be repeated.

- (c) when the movement has travelled 1/2 of the distance required by the last instruction and no further communication is received, the movement must stop at once.

Note:

- 1 When controlling a movement, the engine number will be used to address the employee controlling the movement, e.g., "Engine 7438 move backward 10 rail cars".
- 2 Doubt as to the meaning of an instruction or for whom it is intended must be regarded as a stop signal.
- 3 When rail car lengths are used to communicate distance, unless otherwise arranged, the distance referred to is 50 feet per rail car length.

35 Positive identification

35.1 The person initiating a radio communication and the responding party must establish positive identification.

35.2 The person initiating the radio communication must end the initial call with the spoken word "OVER".

35.3 Each party to a radio communication must end their final transmission with the spoken word "OUT".

36 Content of radio communications

36.1 Radio communications must be brief and to the point and contain only essential instructions or information.

37 Verification procedures

37.1 When verbal instructions or information affecting the safety of a movement are received by radio, such information must be repeated to the sender.

38 Avoiding distraction

38.1 Information must not be copied by the employee operating moving equipment if it will interfere with the safe operation of such equipment.

39 Emergency communication procedures

39.1 Each industrial railway operator must include emergency communication procedures within its general operating instructions.

Schedule 2

Industrial Railway Locomotive Inspection and Safety Rules

Part 1 General

1 Scope

1.1 These Rules prescribe the minimum inspection and safety standards for locomotives operated by an industrial railway operator.

2 Definitions

2.1 In these Rules,

- (a) “bad order” means a locomotive having a defect as described in Part 3 of these Rules;
- (b) “break” means a fracture resulting in complete separation into parts. The terms “break” and “broken” are used interchangeably in these Rules;
- (c) “candela” means the unit of luminous intensity of a light source;
- (d) “cracked” means fractured without complete separation into parts;
- (e) “dBA” means an abbreviated symbol for a sound level measured on the “A” weighted slow response scale of a sound level meter;
- (f) “designated service” means operation of a locomotive exclusively under conditions where it
 - (i) is not used as an independent or controlling locomotive in the lead position except within a single yard area,
 - (ii) is not occupied by an employee when the locomotive is moving from one yard area to another, and
 - (iii) has stencilled or posted in the locomotive cab the words “To be occupied in Designated Service only”;
- (g) “fire season” means the period of time from April 1 to the next following October 31;
- (h) “in service” means all locomotives except those that are

- (i) bad order or being moved to another location for repair(s) as provided in Rule 4.2, or both,
 - (ii) in a repair shop or on a repair track, or
 - (iii) on a storage track and are dead and drained;
- (i) “locomotive” means a railway locomotive intended for the propulsion or control of rail cars or equipment;
 - (j) “locomotive consist” means a combination of locomotives operated from a single control;
 - (k) “locomotive inspector” means an employee who is trained to perform safety inspections of locomotives pursuant to Rule 5.1;
 - (l) “operative” means a component or system that is in a safe condition to perform its intended function;
 - (m) “safety control” means a device that will cause a brake application to be initiated automatically if a locomotive operator becomes incapacitated;
 - (n) “safety defect” means any item or component that is defective on a locomotive as prescribed in Part 3 of these Rules;
 - (o) “safety glazing material” means safety glass that has been certified by the manufacturer as having met the testing requirements that are equivalent to, or exceed, North American standards;
 - (p) “safety inspection” means an examination of a locomotive for safety defects while stationary by a locomotive inspector or competent employee to verify that it may move safely, and to identify those defects described in Part 3 of these Rules that may inhibit that movement and require correction. Safety inspections are intended to be of a visual nature;
 - (q) “safety inspection location” means a location where a certified locomotive inspector performs safety inspections;
 - (r) “yard service” means locomotives involved exclusively in switching, trimming and industrial switching.

3 Industrial railway operator responsibility

3.1 An industrial railway operator is responsible for the inspection and repair of all locomotives to ensure safe operation. All components, appurtenances and control apparatuses of all locomotives must be designed and maintained to perform their intended function.

3.2 An industrial railway operator shall reply within 30 days in writing or by acceptable electronic means to the Railway Administrator on the corrective action taken to correct a violation or defect reported by a railway safety officer. The reply must include the unit initials and number of the locomotive and the date that and location where the corrective action was taken.

4 Application of safety inspections and movement restrictions

4.1 An industrial railway operator shall ensure that locomotives placed or continued in service are free from all safety defects described in Part 3 of these Rules.

4.2 A locomotive identified with safety defects may be moved to a designated location for repair only when authorized by a person in charge who shall ensure that

- (a) the locomotive is safe to move (in operating or dead head mode in the direction of travel),
- (b) a means to protect the locomotive's safe movement is implemented, including identifying to all employees involved the defects that restrict the locomotive's movements, and identifying the designated location where the defective locomotive must be repaired prior to returning to service and the name of the person in charge authorizing the movement, and
- (c) the movement of the locomotive with safety defects is controlled and protected by the use of a bad order information system, and that the appropriate records are retained for a period of 92 days.

5 Locomotive inspector

5.1 An industrial railway operator shall ensure that locomotive inspectors are trained to perform safety inspections of locomotives in compliance with these Rules. Locomotive inspectors must demonstrate to an industrial railway operator by means of oral or written examinations and on-the-job performance a knowledge and ability concerning safety inspection of railway locomotives.

Locomotive inspectors contracted by an industrial railway operator to perform safety inspections of locomotives must demonstrate their qualifications by producing documentation evidencing their competency.

5.2 An industrial railway operator shall maintain a record of all locomotive inspectors. This record must be made available to a railway safety officer on request.

5.3 Locomotive inspectors must be re-examined if they have not performed the duties prescribed in these Rules for a period of 3 years or more.

6 Safety inspection locations

6.1 An industrial site is a safety inspection location for the purpose of these Rules.

6.2 At safety inspection locations, all locomotives placed in service must receive a safety inspection.

6.3 An industrial railway operator shall maintain a record of all locomotives that receive a safety inspection. This information must be retained for a minimum of 92 days and be made available to a railway safety officer on request.

6.4 At safety inspection locations, locomotives operating in “yard service” or “designated service” must receive a safety inspection at intervals not exceeding 45 days.

6.5 At those locations, prior to departure where locomotive(s) receiving a safety inspection have been placed in service or placed on a train, the locomotive operator must be notified that a safety inspection has been performed. The notification must include any information required for movement of safety defects as provided in Rule 4.2.

7 Pre-use inspection

7.1 At safety inspection locations where a locomotive is placed in service or a locomotive layover of more than 8 hours has occurred, the locomotive must be given a pre-use inspection by either a locomotive operator or other competent employee for those conditions listed in the Appendix.

7.2 The locomotive operator or competent employee is responsible for determining that the prescribed inspection has been completed prior to departure.

Part 2

Locomotive Design Requirements

8 General Design

8.1 A locomotive must be designed and constructed to provide for safe operation and protection of the operating crews and property from accidents caused by functional failure of locomotives.

8.2 New locomotives must be designed and constructed at a minimum in accordance with the latest revision of the *Association of American Railroads Manual of Standards and Recommended Practices (S-580)* or to an equivalent standard to provide for safe operation and for the protection of operating crews and property from accidents caused by functional failure of locomotives. Such standards must be kept on file by the industrial railway operator and made available to the Railway Administrator on request.

8.3 Passageways and walkways must be properly treated with anti-skid decking to provide secure footing.

8.4 A locomotive consist with open end platforms must have a means of safe passage between them. There must be a continuous barrier across the full width of the end of a locomotive or a continuous barrier between locomotives.

9 Audible signals

9.1 Locomotives, other than those in designated service operating in a controlling position, must be equipped with a horn that is tuned in chords of not less than 3 tones meeting the following design criteria:

- (a) the horn must produce a minimum sound level of 96 dBA at any location on an arc of 30.5 metres (100 feet) radius subtended forward of the locomotive by angles 45 degrees to the left and to the right of the centreline of the track in the direction of travel;
- (b) the control of the horn must be located to allow for convenient operation from the locomotive operator's normal operating location.

9.2 Locomotives operating in a controlling position must be equipped with a bell, or other device capable of producing an equivalent sound, meeting the following design criteria:

- (a) the bell must produce a minimum sound level of 60 dBA at any location on an arc of 15.25 metres (50 feet) radius

subtended forward of the locomotive by angles 45 degrees to the left and to the right of the centreline of the track in the direction of travel;

- (b) the control of the bell must be located to allow for convenient operation from the locomotive operator's normal operating location.

10 Safety control equipment

10.1 Controlling locomotives must be equipped with a safety control system that, as a minimum, initiates a full service brake application and removes all tractive effort in the event that the person operating the locomotive becomes inattentive or incapacitated.

11 Safety appliances

11.1 Safety appliances on locomotives must be in compliance with General Order No. 0-10, *Regulations Respecting Railway Safety Appliance Standards* (Canada).

12 Flags and lanterns

12.1 Locomotives must be equipped with 2 red flags and 2 red lanterns if movements on the industrial railway have the potential to foul the main track.

13 Spark-arresting devices

13.1 Locomotives must be equipped with a spark-arresting device or a turbocharger.

14 Illuminating devices

14.1 Locomotives operating in a leading position must be equipped with headlight(s) meeting the following design criteria:

- (a) locomotives must be equipped with a minimum of one headlight that produces at least 200 000 candela;
- (b) headlight(s) on designated or yard service locomotives must be aligned to centreline in the horizontal plane and depressed in the vertical plane to strike the rail at 91.5 metres (300 feet) ahead of the locomotive in the direction of travel;
- (c) headlight(s) must be provided with a dimming device that reduces normal operating voltage by nominally 50%. The control of such devices must be located to allow for convenient operation from the locomotive operator's normal operating location;

- (d) locomotives must be equipped with a rear headlight or have an illuminating device to provide for a safe switching operation.

14.2 Locomotives operating in a controlling position must be equipped with means of illuminating the control instruments, meters and gauges to enable the locomotive operator to make accurate readings from the normal operating location without interfering with the operator's vision of track and signals.

15 Safety glazing material

15.1 Locomotives, other than in designated or yard service, must be equipped with safety glazing material on all windows of the operating and/or occupied cabs.

16 Fail-safe circuits and systems

16.1 Any component of electrical or mechanical systems vital to the safety of locomotive occupants must, in the case of failure, retain the locomotive in a safe operative condition.

17 Fuel tanks

17.1 Fuel tanks must be provided with suitable liquid level gauges, so located that the fuel level in the tanks can be determined when the tanks are being filled. Gauges must be protected against accidental breakage where loss of fuel would be incurred.

18 Wheels and axles

18.1 Traction motors support bearing on new locomotives purchased subsequent to the approval of this Rule must be of the roller bearing type.

Part 3 Locomotive Inspection Requirements

19 Brake system

19.1 The brake system and all related components, including the handbrake, must be

- (a) in a safe operative condition, and
- (b) maintained in accordance with the brake manufacturer's requirements.

19.2 An industrial railway operator shall have a locomotive pneumatic brake maintenance plan in place. This plan must be made available to a railway safety officer on request.

20 Trucks

20.1 An industrial railway operator shall not place or continue in service a locomotive with any of the following truck-related defects:

- (a) cracked or broken truck frames, swing hangers, swing hanger pins or equalizers;
- (b) suspension components, such as coil or rubber springs, elliptic springs, snubbers and dampers, must not be missing, cracked, broken or out of place and must be properly secured.

20.2 All components attached to the truck frames must be properly secured.

20.3 The bolster side bearing and pedestal clearances must be maintained within manufacturer's specifications.

20.4 The truck frame, brake rigging and associated components of locomotives must be kept free from accumulation of oil, grease and other combustible materials.

21 Wheels and axles

21.1 An industrial railway operator shall not place or continue in service a locomotive with any of the following wheel defects:

- (a) flange thickness of 7/8 inches (22.2 mm) or less;
- (b) vertical flange of 1 inch (25.4 mm) or more;
- (c) a flange height of 1 1/2 inches (38.1 mm) or more measured from tread to the top of the flange;
- (d) a straight or curved plate wheel with a rim thickness of 3/4 inches (19.0 mm) or less;
- (e) a flat spot of 2 1/2 inches (63.5 mm) or more in length or, in the case of multiple flat spots, 2 inches (50.8 mm) or more in length;
- (f) a gouge or chip in the flange that is more than 1 1/2 inches (38.1 mm) in length and 1/2 inch (12.7 mm) in width;
- (g) a shell of 2 1/2 inches (63.5 mm) or more in length or, in the case of multiple shells, 2 inches (50.8 mm) or more in length;
- (h) tread worn hollow 5/16 inches (7.9 mm) or more;

- (i) a crack in the rim, plate or hub;
- (j) a loose wheel;
- (k) the variation in the circumference of wheels that exceeds 1/4 inch or 2 tapes on the same axle when applied or threaded.

21.2 An industrial railway operator shall not place or continue in service a locomotive with a traction motor support bearing that shows evidence of any of the following:

- (a) overheating;
- (b) loose or missing bolts;
- (c) oil leaking from reservoir;
- (d) a missing or defective reservoir filler cup, or a drain plug that is not properly secured.

21.3 An industrial railway operator shall not place or continue in service a locomotive with any of the following journal bearing safety defects:

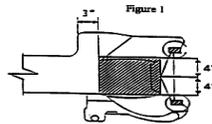
- (a) a loose or damaged seal;
- (b) a loose or missing end cap bolt;
- (c) signs of overheating;
- (d) a missing or defective gasket, or a drain plug that is not properly secured.

22 Draft couplers

22.1 An industrial railway operator shall not place or continue in service a locomotive with any of the following coupler-related defects:

- (a) a coupler shank that is bent out of alignment to the extent that the coupler will not couple automatically;
- (b) a coupler knuckle that is cracked or broken on the inside pulling face of the knuckle, except that shrinkage cracks or hot tears that do not significantly reduce the strength of the knuckle shall not be considered cracked;
- (c) a knuckle pin or thrower that is missing or inoperative;
- (d) a coupler retaining pin lock that is missing or broken;

- (e) a coupler with an inoperative lock lift or a coupler assembly that does not have anti-creep protection to prevent unintentional unlocking of the coupler lock;
- (f) a coupler lock that is missing, inoperative, bent, cracked or broken;
- (g) a coupler not falling within the following heights above the rails, except those by design and of which specifications will be filed with the Railway Administrator:
 - (i) minimum height: 31 1/2 inches (800 mm);
 - (ii) maximum height: 34 1/2 inches (876 mm);
- (h) a coupler that has a crack in the area of the shank or head represented by the unshaded portion of the following figure, except that shrinkage cracks or hot tears that do not significantly reduce the strength of the coupler shall not be considered cracked;



- (i) an inoperative uncoupling device.

22.2 An industrial railway operator shall not place or continue in service a locomotive with a draft arrangement that shows evidence of any of the following:

- (a) a draft gear that is inoperative;
- (b) a cracked or broken yoke;
- (c) a vertical coupler pin retainer that is missing or defective;
- (d) a draft gear carrier plate that is missing or has more than 25% of the fasteners loose or missing;
- (e) a draft stop that is missing or broken to the extent that it no longer performs its design function.

23 Fuel tanks

23.1 The exterior of fuel tanks of the locomotive must be kept free from accumulation of oil, grease and other combustible materials.

23.2 Fuel tanks, filling adapters, pumps, piping, valves and connections must be kept free from leaks, properly secured and in operative condition.

23.3 The fuel tank vent must be kept clear of obstructions.

24 Internal combustion engine

24.1 The engine and engine room must be kept free from accumulation of oil, grease, fuel oil and other combustible materials. Pollution control tanks must be properly secured and kept free from leakage or overflow.

24.2 Locomotives operated in service during the fire season must have exhaust passages on the discharge side of spark arresting devices or turbochargers and must be kept free of oil accumulation and carbonaceous deposits in excess of 1/8 inch (3 mm) in thickness.

25 Rail clearance

25.1 No part or appliance of a locomotive, except wheels and flexible non-metallic sand pipe extension tips, shall be less than 2 1/2 inches (63 mm) above the top of the rail.

26 Windows

26.1 Windows on controlling locomotives must be kept clean and free from cracks or obstructions. All related components on controlling locomotives, such as wipers, sun visors and defrosters, must be kept in operative condition.

27 Safety control equipment

27.1 A controlling locomotive in designated or yard service that is not equipped with a reset safety control must have an operative safety control foot pedal.

28 Safety appliances

28.1 All safety appliances, as described in General Order No. 0-10, *Regulations Respecting Railway Safety Appliance Standards* (Canada), must be kept in a safe and operative condition.

29 Speed indicator

29.1 A controlling locomotive must not be placed in service other than in designated service without operative speed indicator(s), when equipped.

30 Audible signals

30.1 All audible signal equipment on controlling locomotives must be in operative condition.

31 Illuminating devices

31.1 All illuminating devices must be secured and be in operative condition.

Part 4 Locomotive Filing Requirements

32 Filing requirements with the Railway Administrator

32.1 An industrial railway operator shall maintain maintenance records for each of its owned or leased locomotives for at least 3 years. These records must be made available to a railway safety officer on request.

32.2 An industrial railway operator shall retain on file and provide to the Railway Administrator on request the latest revision of the following safety guidelines and procedures as amended:

- (a) specifications for couplers not falling within the following heights above the rails:
 - (i) minimum height — 31 1/2 inches (800 mm);
 - (ii) maximum height — 34 1/2 inches (876 mm);
- (b) testing procedures for reset safety control systems;
- (c) method of testing window and door safety glazing;
- (d) testing procedures for audible signals.

32.3 An industrial railway operator shall, if requested, file with the Railway Administrator a full description of the training program and criteria used

- (a) to perform safety inspections, and
- (b) to perform pre-departure inspections in accordance with the Appendix.

**Appendix
Pre-use Inspection by a Locomotive
Operator or Other Competent Employee**

1 In accordance with Rule 7.1, a pre-use inspection of a locomotive must be performed by a locomotive operator or other competent employee for the following:

- (a) perform a locomotive brake test, including the operation and recovery of the safety control system;
- (b) ensure that the handbrakes are released on all locomotives;
- (c) ensure that the headlights, bell, whistle or other audible warning devices are working;
- (d) know that the flagging equipment is fully supplied (see Note);
- (e) inspect the locomotive(s) for any other apparent hazards likely to cause an accident or injury.

2 Exceptions must be reported for correction.

3 Note: At least 2 flagging kits containing one red flag and one red lantern must be available on the locomotive if movements on the industrial railway have the potential to foul the main track of a railway.

Schedule 3

**Industrial Railway Rail Car Mover
Inspection and Safety Rules**

**Part 1
General**

1 Scope

1.1 These Rules prescribe the minimum inspection and safety standards for rail car movers operated by an industrial railway operator.

2 Definitions

2.1 In these Rules,

- (a) “break” means a fracture resulting in complete separation into parts. The terms “break” and “broken” are used interchangeably in these Rules;

- (b) “cracked” means fractured without complete separation into parts;
- (c) “operative” means a component or system that is in a safe condition to perform its intended function;
- (d) “rail car mover” means a rail vehicle, other than a locomotive, propelled by any energy form intended for the propulsion or control of freight or service equipment;
- (e) “rail car mover inspector” means an employee or a contractor who is trained to perform safety inspections of rail car movers pursuant to Rule 5.1;
- (f) “safety control” means a device that will cause the tractive force to be removed and brake application to be initiated automatically if the rail car mover operator becomes incapacitated;
- (g) “safety defect” means any item or component that is defective on a rail car mover as prescribed in Part 3 of these Rules;
- (h) “safety glazing material” means safety glass that has been certified by the manufacturer as having met the testing requirements that are equivalent to, or exceed, North American standards;
- (i) “safety inspection” means an examination of a rail car mover for safety defects while stationary by a rail car mover inspector or a competent employee to verify that it may move safely, and to identify those defects described in Part 3 of these Rules that may inhibit that movement and require correction.

3 Industrial railway operator responsibility

3.1 An industrial railway operator is responsible for the inspection and repair of all rail car movers to ensure safe operation. All components, appurtenances and control apparatuses of all rail car movers must be designed and maintained to perform their intended function.

3.2 An industrial railway operator shall reply, in writing or by acceptable electronic means, within 30 days, to the Railway Administrator on the corrective action taken to correct a violation or defect reported by a railway safety officer. The reply must

include the unit number of the rail car mover and the date that the corrective action was taken.

4 Application of safety inspections and movement restrictions

4.1 An industrial railway operator shall ensure that rail car movers placed or continued in service are free from all safety defects described in Part 3 of these Rules.

5 Rail car mover inspector

5.1 An industrial railway operator shall ensure that rail car mover inspectors are trained to perform safety inspections of rail car movers in compliance with these Rules. Rail car mover inspectors must demonstrate to an industrial railway operator by means of oral or written examinations and on-the-job performance a knowledge and ability concerning safety inspection of rail car movers. Rail car mover inspectors contracted by an industrial railway operator to perform safety inspections of rail car movers must demonstrate their competency by producing documentation evidencing their competency.

5.2 An industrial railway operator shall maintain a record of all rail car mover inspectors. This record must be made available to a railway safety officer on request.

5.3 Rail car mover inspectors must be re-examined if they have not been performing the duties prescribed in these Rules for a period extending over 3 years.

6 Pre-use inspection

6.1 At locations where a rail car mover is placed in service or a rail car mover layover of more than 8 hours has occurred, the rail car mover must be given a pre-use inspection by either a rail car mover operator or other competent employee for those conditions listed in the Appendix.

6.2 The rail car mover operator is responsible for determining that the prescribed inspection has been completed prior to use.

Part 2 Rail Car Mover Design Requirements

7 General design

7.1 A rail car mover must be designed and constructed to provide for safe operation and protection of the operating crews and property from accidents caused by functional failure of a rail car mover.

7.2 Passageways and walkways must be properly treated with anti-skid decking to provide secure footing.

8 Audible signals

8.1 Rail car movers must be equipped with a warning horn that has a reasonable sound level and meets the following design criteria:

- (a) the horn must produce an audible warning sound level at any location on an arc of 30.5 metres (100 feet) radius subtended forward of the rail car mover by angles 45 degrees to the left and to the right of the centreline of the track in the direction of travel;
- (b) the control of the horn must be located to allow for convenient operation from the rail car mover operator's normal operating location.

9 Safety control equipment

9.1 Rail car movers must be equipped with a safety control device that, as a minimum, initiates a pneumatic brake application and removes all tractive effort in the event that the person operating the rail car mover becomes inattentive or incapacitated.

9.2 Rail car movers that are in Alberta on or before January 1, 2011 must be equipped with a safety control system by January 1, 2015.

9.3 Rail car movers that are brought into Alberta after January 1, 2011 must be equipped with a safety control system.

10 Safety appliances

10.1 Safety appliances on rail car movers must be in compliance with

- (a) General Order No. 0-10, *Regulations Respecting Railway Safety Appliance Standards* (Canada), and
- (b) the manufacturer's standards.

11 Flags and lanterns

11.1 Rail car movers must be equipped with 2 red flags and 2 red lanterns if movements on the industrial railway have the potential to foul the main track.

12 Spark-arresting devices

12.1 Rail car movers must be equipped with an exhaust system or turbocharger that is designed to prevent sparks or any unintentional source of fire ignition.

13 Illuminating devices

13.1 Rail car movers must be equipped with headlights meeting the following design criteria:

- (a) rail car movers must be equipped with a minimum of 2 headlights forward and 2 aft;
- (b) headlights on a rail car mover must be aligned to the centreline in the horizontal plane and depressed in the vertical plane to strike the rail at 30.5 metres (100 feet) ahead of the rail car mover in the direction of travel;
- (c) a yellow strobe or oscillating light must be mounted to project clearly at a 360 degree arc of light from the rail car mover operator's normal operating location;
- (d) the operator control panel instruments and gauges must be illuminated and clearly visible during hours of darkness.

14 Safety glazing material

14.1 Rail car movers must be equipped with safety glazing material on all windows of the cab.

15 Fail-safe circuits and systems

15.1 Any component of electrical or mechanical systems vital to the safety of rail car mover occupants or the general public must, in the case of failure, retain the rail car mover in a safe operating condition.

16 Fuel tanks

16.1 Fuel tanks must have suitable liquid level gauges located so that the fuel level in the tanks can be determined when the tanks are being filled. Gauges must be protected against accidental breakage where loss of fuel would be incurred.

17 Wheels

17.1 Wheels must be maintained in serviceable condition and follow rail car mover manufacture specifications and Association of American Railroads standards.

Part 3 Rail Car Mover Inspection Requirements

18 Brake system

18.1 The brake system and all related components, including the handbrake, must be tested and maintained in an operative condition

as per the latest procedures issued by the rail car mover manufacturer.

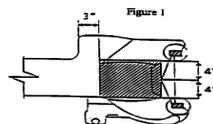
19 Wheels

19.1 An industrial railway operator shall not place or continue in service a rail car mover with any wheel defects that will affect the safe operation of the rail car mover.

20 Couplers

20.1 An industrial railway operator shall not place or continue in service a rail car mover with any of the following coupler-related defects:

- (a) a coupler knuckle that is cracked or broken on the inside pulling face of the knuckle, except that shrinkage cracks or hot tears that do not significantly reduce the strength of the knuckle shall not be considered cracked;
- (b) a knuckle pin or thrower that is missing or inoperative;
- (c) a coupler retaining pin lock that is missing or broken;
- (d) a coupler that is inoperative;
- (e) a coupler lock that is missing, inoperative, bent, cracked or broken;
- (f) a coupler not falling within the following heights above the rails, as measured from the top of the rail to the middle of the coupler head:
 - (i) minimum height: 31 1/2 inches (800 mm);
 - (ii) maximum height: 34 1/2 inches (876 mm);
- (g) a coupler that has a crack in the area of the shank or head represented by the unshaded portion of the following figure, except that shrinkage cracks or hot tears that do not significantly reduce the strength of the coupler shall not be considered cracked;



- (h) an inoperative uncoupling device.

21 Fuel tanks

21.1 The exterior of fuel tanks of the rail car mover must be kept free from accumulation of oil, grease and other combustible materials.

21.2 Fuel tanks, filling adapters, pumps, piping, valves and connections must be kept free from leaks, properly secured and in operative condition.

21.3 The fuel tank vent must be kept clear of obstructions.

22 Internal combustion engine

22.1 The engine and engine room must be kept free from accumulation of oil, grease, fuel oil and other combustible materials.

23 Rail clearance

23.1 No part or appliance of a rail car mover, except wheels and flexible non-metallic sand pipe extension tips, may be less than 2 1/2 inches (63 mm) above the top of the rail.

24 Windows

24.1 Windows on rail car movers must be kept clean and free from cracks or obstructions. All related components, such as wipers, sun visors and defrosters, must be kept in operative condition.

25 Safety control equipment

25.1 A reset safety control device on a rail car mover must be kept in an operative condition.

26 Safety appliances

26.1 All safety appliances, as described in General Order No. 0-10, *Regulations Respecting Railway Safety Appliance Standards* (Canada), must be kept in a safe and operative condition.

27 Speed indicator

27.1 When a rail car mover is equipped with a speed indicator, the speed indicator must be kept in an operative condition.

28 Audible signals

28.1 All audible signal equipment on a rail car mover must be kept in an operative condition.

29 Illuminating devices

29.1 All illuminating devices on a rail car mover must be secured and kept in an operative condition.

Part 4 Rail Car Mover Filing Requirements

30 Filing requirements

30.1 An industrial railway operator shall maintain maintenance records for each of its rail car movers for at least 3 years. These records must be made available to a railway safety officer on request.

30.2 An industrial railway operator shall on request file with the Railway Administrator a full description of the training program and criteria used

- (a) to perform safety inspections, and
- (b) to perform pre-use inspections in accordance with the Appendix.

Appendix Pre-use Inspection by a Rail Car Mover Operator or Other Competent Employee

1 In accordance with Rule 6.1, a pre-use inspection of a rail car mover must be performed by a rail car mover operator or other competent employee for the following:

- (a) brake test, including the operation of the safety control system;
- (b) handbrake in working condition;
- (c) headlights;
- (d) oscillating lamps;
- (e) running gear;
- (f) any other apparent safety hazard likely to cause an accident or casualty.

2 Exceptions must be reported to the person in charge of rail operations.

3 Note: At least 2 flagging kits containing one red flag and one red lantern must be available on the rail car mover if movements on the industrial railway have the potential to foul the main track.

Schedule 4

Industrial Railway Freight Car Inspection and Safety Rules

1 Scope

1.1 These Rules prescribe the mechanical knowledge and defect reporting required of employees directly involved with the movement of freight cars within an industrial site.

2 Definitions

2.1 In these Rules,

- (a) “broken” means fractured into parts;
- (b) “cracked” means fractured without complete separation into parts;
- (c) “freight car” means a rail car designed to carry freight on rail;
- (d) “freight car inspector” means an employee who is trained to perform safety inspections of freight cars;
- (e) “safety defect” means any item or component that is defective on a freight car as prescribed in Appendix 1.

3 Training of employees

3.1 An industrial railway operator shall ensure that its employees who are directly involved with rail operations are trained to identify obvious mechanical defects of freight cars within their normal work routine using the guidelines in Table A in Appendix 1. In addition, proper reporting of defects must be made using railway-established guidelines for identifying

- (a) “A” and “B” end of freight cars,
- (b) specific wheels and axles, and
- (c) proper terminology of freight car components.

3.2 Employees must demonstrate by means of oral or written examinations and on-the-job performance the knowledge and ability to visually inspect freight cars and report defects.

3.3 An industrial railway operator shall maintain a full description of the training program and criteria used for training employees in accordance with these Rules.

3.4 An industrial railway operator shall maintain a record of all employees who have been trained in accordance with these Rules. This record must be made available to a railway safety officer on request.

4 Requirements for dangerous goods cars

4.1 Freight cars carrying goods subject to the *Dangerous Goods Transportation and Handling Act* (Alberta) must be inspected by a competent employee at the point of loading using the guidelines in Table A in Appendix 1.

5 Exclusions

5.1 These Rules do not apply to freight cars operated solely on a track inside an industrial site.

Appendix 1 Inspection for Mechanical Defects by Other Than a Freight Car Inspector

- 1** Employees shall perform visual inspections of railway cars as follows for observable defects described in Table A below.
- 2** Prior to unloading freight cars received to ensure that safe unloading conditions exist.
- 3** Prior to loading freight cars received for loading to ensure that safe loading conditions exist and the cars are suitable for movement to destination.
- 4** As part of their normal working routine, employees shall visually inspect the freight cars they are working around watching for any defects or any other unusual circumstance affecting the freight car's safe operation.
- 5** In the event a defect is found, proper reporting to the service provider must be made to ensure that the freight cars are inspected and deemed safe to travel.

Table A Observable Defects

A. Car body:

- A.1 car body leaning or listing to the side;
- A.2 car body sagging downward;
- A.3 car body positioned improperly on the track;
- A.4 object dragging below the car body;

- A.5 object extending from the side of the car body;
- A.6 door insecurely attached. If the car is a boxcar, the following are considered “safety defects”:
 - A.6.a more than one door stop missing or broken per door;
 - A.6.b safety hangers missing or inoperative on sliding or plug doors so equipped;
 - A.6.c sliding or plug-type doors off the rails;
 - A.6.d plug-type doors not closed and secured;
 - A.6.e door rail supports cracked or broken to the extent that they do not perform their design function;
 - A.6.f broken or missing safety appliance (handholds, ladders, sill steps);
 - A.6.g lading leaking from a placarded dangerous goods car.
- B.** Insecure coupling:
 - B.1 the car has a coupler knuckle that is cracked or broken;
 - B.2 the car has a knuckle pin or thrower that is missing or inoperative.
- C.** Overheated wheel or journal:
 - C.1 a roller bearing shows signs of having been overheated;
 - C.2 a roller bearing has damaged external parts that are visibly cracked, broken or bent;
 - C.3 a roller bearing is losing grease to the extent that fresh grease is spread across the truck side frame;
 - C.4 a roller bearing has a missing or loose cap screw.
- D.** Broken or extensively cracked wheel.
- E.** Inoperative handbrake.
- F.** Brake that failed to release.

- G.** Any other apparent safety hazard likely to cause an accident or casualty before the car arrives at its destination.

Appendix 2 Inspection Required by a Freight Car Inspector

Any freight car involved in a derailment must have its bearings inspected by a freight car inspector. If a freight car is derailed in an industrial railway yard, the industrial railway operator must notify the service provider to ensure that the car is inspected and deemed safe to travel.

Schedule 5

Industrial Railway Rules Respecting Track Safety

Part 1 General

1 Definitions

1.1 In these Rules,

- (a) “derail” means a safety device
 - (i) used to protect against an unintended movement of equipment, and
 - (ii) that will derail railway equipment that is not supposed to pass over that particular track;
- (b) “frog” means the crossing point of two rails and forms part of a track switch;
- (c) “guard rail” means a short piece of rail alongside the main (stock) rail opposite the frog;
- (d) “line of track” or “track” means an industrial railway track of any length, including yard tracks, spurs and other tracks auxiliary to an industrial railway track, and includes the right-of-way and the structures supporting or protecting the track or facilitating drainage from the track;
- (e) “main track” means a track that is owned or operated by a person other than an industrial railway operator that is governed by one or more methods of control on which movements, track units and track work must be authorized;

- (f) “stock rail” means the rail against which the point of a switch rests;
- (g) “switch point” means movable rails that guide the wheels towards either the straight or diverging track;
- (h) “track crossing” means the crossing of 2 tracks at grade;
- (i) “track inspector” means an employee who is trained to inspect tracks for defects pursuant to Rule 8.1;
- (j) “track supervisor” means an employee who is trained to supervise restorations and renewals of track pursuant to Rule 7.1.

2 Scope

2.1 This Part prescribes initial minimum safety requirements for track that is part of an industrial site. The requirements prescribed in this Part apply to specific track conditions existing in isolation. Therefore, a combination of track conditions, none of which individually amounts to a deviation from the requirements in this Part, may require remedial action to provide for safe operations over that track. Nothing in these Rules prevents an industrial railway operator from prescribing a higher level of maintenance.

3 Application

3.1 These Rules apply only to industrial railways operating on standard gauge track.

3.2 The purpose of these Rules is to ensure the safe operation of railway movements on standard gauge track owned by, operated on or used by an industrial railway operator.

4 Responsibility of the industrial railway operator

4.1 Where a line of track is not in compliance with the requirements of these Rules, the industrial railway operator shall immediately

- (a) bring the line of track into compliance, or
- (b) halt operations over that line of track.

4.2 Notwithstanding Rule 4.1, in the case of Class 1 track that is not in compliance with these Rules, the industrial railway operator may operate on that line of track for not more than 30 days if the industrial railway operator takes steps that will ensure an equivalent level of safety of the operation. A railway safety officer may reject an individual railway operator’s steps if, in the railway

safety officer's opinion, an equivalent level of safety has not been achieved.

5 Restoration or renewal of track under traffic conditions

5.1 If during a period of restoration or renewal, track is under traffic conditions and does not meet all of the requirements prescribed in this Part, the industrial railway operator shall take all necessary precautions to ensure that no harm will occur to property, the environment or the health or safety of a person.

6 Measuring track not under load

6.1 When unloaded track is measured to determine compliance with the requirements of this Part, the amount of rail movement, if any, that occurs while the track is loaded must be added to the measurements of the unloaded track.

7 Track supervisors

7.1 An industrial railway operator shall ensure that track supervisors are

- (a) trained to supervise restorations and renewals of track under traffic conditions, and
- (b) competent to inspect track for defects.

7.2 A track supervisor must also be qualified to inspect tracks for defects.

8 Track inspectors

8.1 An industrial railway operator shall ensure that track inspectors are trained to inspect track for defects.

9 Records

9.1 An industrial railway operator shall maintain a record of all track inspectors and track supervisors.

10 Certification

10.1 No industrial railway operator shall allow an employee to perform the duties of a track inspector or track supervisor unless the employee has, to the satisfaction of the operator, met the criteria established by these Rules.

11 Track inspection

11.1 A track inspector or track supervisor shall undertake track inspection by such a method as to ensure that a line of track is safe for operation of a movement at the authorized speed at least monthly or before rail car movements occur if track is used less than once a month.

**Part 2
Track Safety Rules**

**Division 1
Class of Tracks**

12 Operating speed limits

12.1 The following maximum allowable operating speeds apply (in miles per hour):

Over track that meets all of the requirements prescribed in this Part for	The maximum allowable operating speed in a yard is	Class of track is
Industrial railway operator	10	1
Industrial railway operator	10	2

Note 1: Industrial railway operators handling cars containing dangerous goods (DG) shall maintain their track to the Class 2 requirements.

Note 2: Transfer and Interchange Track outside of the industrial site must be classified by the owner in consultation with the service provider and must be based on planned car volume, speed, subgrade, track geometry and gradient.

**Division 2
Roadbed**

13 Drainage

13.1 Each drainage or other water-carrying facility under or immediately adjacent to the roadbed must be maintained and kept free of obstruction to accommodate expected water flow for the area concerned.

14 Vegetation

14.1 Vegetation on industrial railway property that is on or immediately adjacent to the roadbed must be controlled so that it does not

- (a) become a fire hazard to track-carrying structures,
- (b) obstruct visibility of railway signs and signals,
- (c) interfere with employees performing normal track side duties,
- (d) prevent proper functioning of signal and communication lines, or

- (e) prevent employees from visually inspecting moving equipment from their normal duty stations.

Division 3 Track Geometry

15 Scope

15.1 This Division prescribes requirements for the gauge, alignment and surface of track, and the elevation of outer rails and speed limitations for curved track.

16 Gauge — general

16.1 Gauge is measured between the heads of the rails at right angles to the rails in a plane 5/8 of an inch below the top of the rail head.

17 Gauge limits

17.1 Gauge must be within the limits prescribed in the following table:

Class of track	The gauge must be at least	But no more than
1	4'8" (1/2" N)	4'10" (1 1/2" W)
2	4'8" (1/2" N)	4'9 3/4" (1 1/4" W)

Note: When gauge is less than or more than that prescribed in the table above, immediate corrective action must be taken.

18 Alignment

18.1 Alignment may not deviate from uniformity more than the amount prescribed in the following table:

Class of track	Tangent track — the deviation of the mid-offset from 62-foot line¹ may not be more than	Curved track — the deviation of the mid-offset from 62-foot chord² may not be more than
Class 1	5 in	5 in
Class 2	3 in	3 in

¹ The ends of the line must be at points on the gauge side of the line rail, 5/8 of an inch below the top of the rail head. Either rail may be used as the line rail; however, the same rail must be used for the full length of that tangential segment of track.

² The ends of the chord must be at points on the gauge side of the outer rail, 5/8 of an inch below the top of the rail head.

19 Curves — elevation and speed limitations

19.1 Except as provided in Rule 21, the outside rail of a curve may not be lower than the inside rail or have more than one inch of elevation.

20 Elevation of curved track runoff

20.1 Elevation runoff must be at a uniform rate within the limits of track surface deviation prescribed in Rule 21, and it must extend at

least the full length of the spirals. If physical conditions do not permit a spiral long enough to accommodate the minimum length of runoff, part of the runoff may be on tangent track.

21 Track surface

21.1 An industrial railway operator shall maintain the surface of its track within the limits prescribed in the following table:

Track Surface	Class of Track	
	1	2
The runoff in any 31 feet of rail at the end of a raise may not be more than	3 1/2 in	3 in
The deviation from uniform profile on rail at the mid-ordinate of a 62-foot chord may not be more than	3 in	2 3/4 in
Deviation from designated elevation on spirals may not be more than	1 3/4 in	1 1/2 in
Variation in cross level on spirals in any 31 feet may not be more than	2 in	1 3/4 in
Deviation from zero cross level at any point on tangent or from designated elevation on curves between spirals may not be more than	3 in	2 in
The difference in cross level between any 2 points less than 62 feet apart on tangents and curves between spirals may not be more than	3 in	2 in

**Division 4
Track Structure**

22 Scope

22.1 This Division prescribes minimum requirements for ballast, crosstie, track assembly fittings and the physical condition of rails.

23 Ballast — general

23.1 Unless it is otherwise structurally supported, all track must be supported by material that

- (a) transmits and distributes the load of the track and railroad rolling equipment to the subgrade,
- (b) restrains the track laterally, longitudinally and vertically under dynamic loads imposed by railway rolling equipment and thermal stress exerted by the rails,
- (c) provides adequate drainage for the track, and
- (d) maintains proper track cross level, surface and alignment.

24 Crossties

24.1 Crossties must be made of a material to which rail can be securely fastened.

24.2 Each 39-foot segment of track must have

- (a) a sufficient number of crossties that in combination provide effective support that will
 - (i) hold gauge within the limits prescribed in Rule 17,
 - (ii) maintain surface within the limits prescribed in Rule 21, and
 - (iii) maintain alignment within the limits prescribed in Rule 18,
- (b) the minimum number and type of crossties specified in Rule 24.3, effectively distributed to support the entire segment, and
- (c) at least one crosstie of the type specified in Rule 24.3 that is located at a joint location as specified in Rule 24.5.

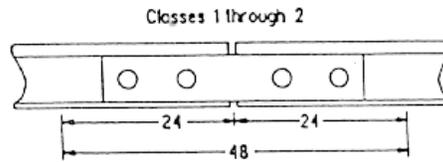
24.3 Each 39-foot segment of track must have a minimum of sound crossties as follows:

- (a) Class 1 track must have 5 crossties;
- (b) Class 2 track must have 8 crossties.

24.4 The crossties must not be

- (a) broken through,
- (b) split or otherwise impaired to the extent the crossties will allow the ballast to work through, or will not hold spikes or rail fasteners,
- (c) so deteriorated that the tie plate or base of rail can move laterally more than 1/2 inch relative to the crossties, or
- (d) cut by the tie plate through more than 40% of a tie's thickness.

24.5 Industrial track shall have one sound crosstie whose centreline is within 24 inches of the rail joint location. The relative position of these ties is described in the following diagram:



24.6 Each rail joint track must be supported by at least one sound crosstie in Rule 24.3 whose centreline is within the 48" shown above.

25 Defective rails

25.1 Rail must be within the following limits of wear:

	136 lb	132 lb	115 lb	112 lb	100/85 lb
Max loss of vertical height	5/8"	9/16"	1/2"	3/8"	9/16"
Total wear (vertical and both sides)	1 1/2"	1 1/2"	1 1/8"	1 1/16"	7/8"
End batter	5/32"	5/32"	5/32"	5/32"	5/32"

26 Rail end mismatch

26.1 Any mismatch of rails at joints may not be more than that prescribed by the following table:

Class of Track	On the top of the rail ends	On the gauge side of the rail end
Class 1	1/4	1/4
Class 2	1/4	3/16

27 Rail joints

27.1 Each rail joint, insulated rail joint and compromise joint must be of the proper design and dimensions for the rail on which it is applied.

27.2 If a joint bar is cracked or broken between the middle 2 bolt holes, it must be replaced.

27.3 In the case of conventional jointed track, each rail must be bolted with at least 2 bolts on either side of the joint bar on class 1 and class 2 track.

27.4 In the case of continuous welded rail track, each rail must be bolted with at least 2 bolts on either side of the joint bar.

27.5 Each joint bar must be held in position by track bolts tightened to allow the joint bar to firmly support the abutting rail ends and to allow longitudinal movement of the rail in the joint to accommodate expansion and contraction due to temperature variations. When out-of-face, no-slip, joint-to-rail contact exists by

design, the requirements of this Rule do not apply. Those locations are considered to be continuous welded rail track and must meet all the requirements for continuous welded rail track prescribed in this Part.

27.6 No rail or angle bar having a torch cut or burned bolt hole may be used.

28 Tie plates

28.1 In track where timber cross-ties are in use, there must be tie plates under the running rails on at least 8 of any 10 consecutive ties.

29 Rail anchoring

29.1 A sufficient number of anchoring devices must be applied to provide adequate longitudinal restraint.

30 Rail fastenings

30.1 Each 39-foot segment of rail must have a sufficient number of fastenings to effectively maintain gauge within the limits prescribed in Rules 17 and 18.

31 Continuous welded rail (CWR)

31.1 An industrial railway operator shall have comprehensive written instructions on proper installation and maintenance of CWR. These instructions shall be made available on request to a railway safety officer.

32 Rail wear

32.1 An industrial railway operator shall have written requirements establishing maximum rail wear limits.

33 Turnouts and track crossings generally

33.1 In turnouts and track crossings, the fastenings must be intact and maintained so as to keep the components securely in place. Also, each switch, frog and guard rail must be kept free of obstructions that may interfere with the passage of wheels.

33.2 Each flange way at turnouts and track crossings must be at least 1 1/2 inches wide.

34 Switches

34.1 Each stock rail must be securely seated in switch plates, but care must be used to avoid canting the rail by over-tightening the rail braces.

34.2 Each switch point must fit its stock rail properly, with the switch stand in either of its closed positions to allow wheels to pass the switch point. Lateral and vertical movement of a stock rail in

the switch plates or of a switch plate on a tie must not adversely affect the fit of the switch point to the stock rail.

34.3 Each switch must be maintained so that the outer edge of the wheel tread cannot contact the gauge side of the stock rail.

34.4 The heel of each switch rail must be secure and the bolts in each heel must be kept tight.

34.5 Each switch stand and connecting rod must be securely fastened and operable without excessive lost motion.

34.6 Each throw lever must be maintained so that it cannot be operated with the lock or keeper in place.

34.7 Each switch position indicator must be clearly visible at all times.

34.8 Unusually chipped or worn switch points must be repaired or replaced. Metal flow must be removed to ensure proper closure.

35 Frogs

35.1 The flange way depth measured from a plane across the wheel-bearing area of a frog on track may not be less than 1 3/8 inches.

35.2 If a frog point is chipped, broken or worn more than 5/8 of an inch down and 6 inches back, operating speed over that frog may not be more than 5 miles per hour.

35.3 If the tread portion of a frog casting is worn down more than 3/8 of an inch below the original contour, operating speed over that frog may not be more than 5 miles per hour.

36 Spring rail frogs

36.1 The outer edge of a wheel tread may not contact the gauge side of a spring wing rail.

36.2 The toe of each wing rail must be solidly tamped and fully and tightly bolted.

36.3 Each frog with a bolt hole defect or head-web separation must be replaced.

36.4 Each spring must have a tension sufficient to hold the wing rail against the point rail.

36.5 The clearance between the hold-down housing and the horn may not be more than 1/4 of an inch.

37 Self-guarded frogs

37.1 The raised guard on a self-guarded frog may not be worn more than 3/8 of an inch.

37.2 If repairs are made to a self-guarded frog without removing it from service, the guarding face must be restored before rebuilding the point.

38 Frog guard rails

38.1 The guard check in frogs must be within the limits prescribed in the following table:

Track	Guard check gauge — the distance between the gauge line of a frog to the guard line ¹ of its guard rail or guarding face, measured across the track at right angles to the gauge line ² , may not be less than
Class 1	4' 6 1/8 "
Class 2	4' 6 1/4 "

¹ Line along that side of the flange way that is nearer to the centre of the track and at the same elevation as the gauge line.

² Line 5/8 of an inch below the top of the centreline of the head of the running rail, or corresponding location of the tread portion of the track structure.

Division 5

Track Appliance and Track-related Devices

39 Scope

39.1 This section prescribes minimum requirements for certain track appliances and track-related devices.

40 Derails

40.1 Each derail must be clearly visible and painted yellow. When in a locked position, a derail must be free of any lost motion that would allow it to be operated without removing the lock.

40.2 Derails must be installed when there is any possibility of equipment that has been left standing on tracks other than main tracks or sidings being moved by gravity so as to obstruct a main track or siding.

40.3 The location of each derail must be marked with a rectangular sign with a yellow background marked with block letter(s) "D" or "DERAIL". The sign must be mounted on a post adjacent to the derail with the bottom of the sign being not less than 1.5 metres or more than 2.0 metres above the ground.

Division 6 Inspection

41 Scope

41.1 This Division prescribes requirements for the frequency and manner of inspecting track to detect deviations from the standards prescribed in this Part.

42 Track inspections

42.1 All track must be inspected monthly with an interval of at least 20 calendar days between inspections, or before use if the track is used less than once a month.

42.2 Each inspection must be made on foot or by riding over the track in a vehicle at a speed that allows the person making the inspection to visually inspect the track structure for compliance with this Part. However, mechanical, electrical and other track inspection devices may be used to supplement visual inspection. If a vehicle is used for visual inspection, the speed of the vehicle may not be more than 5 miles per hour when passing over track crossings, highway crossings or switches.

42.3 When riding over the track in a vehicle, the inspector may inspect up to 2 tracks at one time if one inspector cannot inspect more than 2 tracks at one time and cannot inspect any track centred more than 30 feet from the track on which the inspector is riding.

42.4 Track inspection records must indicate all track(s) included in the inspection and indicate which track(s) was traversed by the vehicle or inspected on foot.

42.5 The inspector's view of the tracks must be unobstructed by tunnels, bridges, differences in ground level or any other circumstances or conditions that would interfere with a clear view of all the tracks being inspected.

42.6 In addition to track inspection, an industrial railway operator shall develop a plan, suitable for its operations, to identify internal track defects.

43 Switch and track crossing inspections

43.1 Except as provided in Rule 43.2, each switch and industrial railway crossing must be inspected on foot at least monthly.

43.2 In the case of track that is used less than once a month, each switch and track crossing must be inspected on foot before it is used.

44 Special inspections

44.1 In the event of fire, flood, severe storm or other occurrence that might have damaged track structure, a special inspection must be made of the track involved as soon as possible after the occurrence.

45 Inspection records

45.1 An industrial railway operator shall keep a record of each inspection required to be performed on a track under this Division.

45.2 Each record of an inspection under Rules 41 and 42 must be prepared on the day the inspection is made and signed by the person making the inspection. Records must specify the track inspected, date of inspection, location and nature of any deviation from the requirements of this Part, and the remedial action taken by the person making the inspection.

45.3 An industrial railway operator shall retain each record at its division headquarters for at least one year after the inspection covered by the record on a rolling calendar year basis.

45.4 All records must be made available to a railway safety officer on request.

Schedule 6

Industrial Railway Crossing Rules

1 Definitions

1.1 In these Rules,

- (a) “industrial railway crossing” means an industrial railway crossing of a highway or private road at grade within an industrial site;
- (b) “private road” means a road within an industrial site that is not a highway.

2 Application

2.1 These Rules apply to industrial railway crossings that are completely within an industrial site.

2.2 An automated industrial railway crossing that is completely within an industrial site or outside of an industrial site is governed by Division 3 of Part 2 of the *Railway Regulation* (AR 177/2002).

3 Plans required

3.1 An industrial railway operator shall maintain and have readily available for inspection by a railway safety officer a crossing plan that ensures the safety of vehicular traffic at each industrial railway crossing.

4 Inspection of crossing

4.1 If, on inspection, a railway safety officer is of the opinion that an industrial railway crossing sign does not meet the requirements of Rule 5, the railway safety officer may direct the industrial railway operator to take such steps as are necessary to correct any deficiency found during the inspection.

5 Railway crossing signs

5.1 Subject to Rule 5.2, an industrial railway operator shall erect on the right side of a highway or private road that crosses an industrial railway a reflectorized railway crossing sign in accordance with this section and the diagrams set out in Appendix 1.

5.2 The crossing sign described in Rule 5.1 must be placed not more than 5 metres from the track with the edge of the sign as close as possible to the travelled portion of the highway or private road so as to be clearly visible to approaching vehicles before the vehicles cross the track.

5.3 On straight and level approaches, the bottom edge of the crossing sign must be not less than 1.5 metres or more than 2 metres above the travelled portion of the highway or private road.

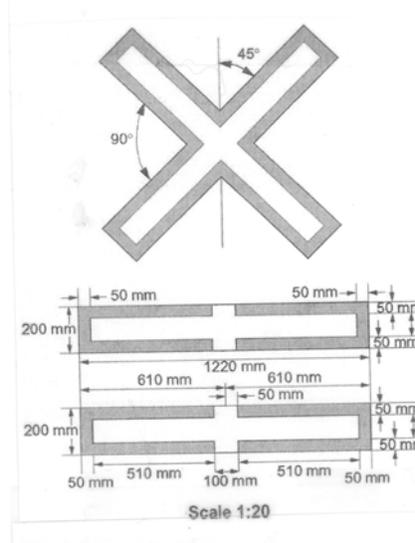
5.4 Where there are grades or curves on the approaches, the crossing sign must be placed so as to be clearly visible to approaching vehicles daytime and nighttime.

5.5 If the distance between the centreline of 2 adjacent tracks is more than 30 metres measured along the highway or private road, each industrial railway crossing is considered to be a separate crossing.

5.6 If there is more than one railway track at an industrial railway crossing, an additional crossing sign indicating by digits the number of tracks to be crossed must be installed on the supporting post of each sign in accordance with the diagram set out in Appendix 3.

Railway Crossing Signs

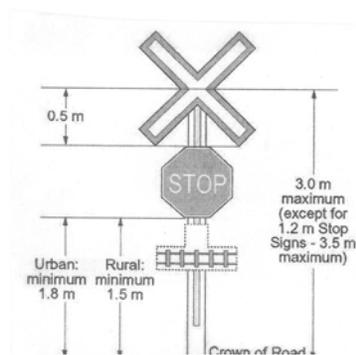
Appendix 1 Industrial Railway Crossing Sign



Notes:

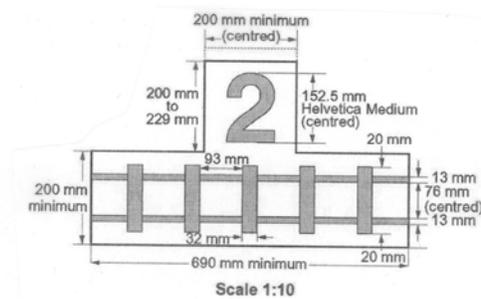
1. Silver white sheeting to cover entire surface.
2. Sheeting material specification for crossing sign and number of tracks sign: CGSB 62-GP-1 / M, Reflectivity Level 1, or better.
3. Railway Crossing Sign 50 mm border transparent red ink silk-screen processed over sheeting material. Number of Tracks Sign digit and illustration to be transparent red ink silk-screen processed, or black lettering.
4. Sheeting material is to be maintained above 50% of the reflectivity value specified in Note 2.

Appendix 2 Stop Sign



Note: Top of sign should be at the elevation of the lowest points of crossing sign.

Appendix 3 Number of Tracks Sign



Note: The digit on the Number of Tracks Sign shall indicate the number of tracks to be crossed.

Schedule 7

Industrial Railway Transfer of Dangerous Goods Rules

1 Definitions

1.1 In these Rules,

- (a) “cathodic protection” means a technique to prevent the corrosion of a metal by making that surface the cathode of an electrochemical cell;
- (b) “dangerous goods” means dangerous goods as defined in the *Transportation of Dangerous Goods Act, 1992* (Canada);
- (c) “rolling stock” means any railway car that operates on track.

2 General

2.1 Except as permitted in these Rules, no industrial railway operator shall transfer dangerous goods between a unit of rolling stock and a stationary bulk storage facility or a highway cargo tank.

2.2 When dangerous goods are being loaded or unloaded into or onto rolling stock, the rolling stock must not be moved.

3 Application of Rules

3.1 Rules 4 to 9 apply in respect of dangerous goods with a primary or subsidiary classification of 2.1, 3, 4 or 5.

3.2 Rules 10 to 15 apply in respect of dangerous goods with any classification.

**Dangerous Goods with
Primary or Subsidiary
Classification of 2.1, 3, 4 or 5**

4 Transfer of dangerous goods

4.1 Subject to Rules 5 to 9, an industrial railway operator may transfer dangerous goods between a unit of rolling stock and a stationary bulk storage facility or a highway cargo tank if the industrial railway operator

- (a) establishes between the section of railway track on which any unit of rolling stock stands and the piping system that is to be used for transfer a permanent electrical connection that consists of at least 2 wires, each of which
 - (i) is made of number 6 copper strand wire or other corrosion-resistant material, and
 - (ii) has a resistance of not more than 1.33 ohms/km,
- (b) bonds sections of railway track on which any unit of rolling stock stands at each rail joint in the section and cross-bonds the rails of that section in at least 2 places,
- (c) grounds the section of railway track that is bonded as required by clause (b) with at least 2 ground rods that are
 - (i) at least 3 metres (10 feet) long,
 - (ii) at least 15.8 millimetres (5/8 inch) in diameter, and
 - (iii) connected to each other and to the section of railway track with 2 wires between each point of connection, each of which having a resistance of not more than 1.33 ohms/km between each place where the section of railway track is grounded,
- (d) grounds all non-current-carrying components of the piping system that is to be used for the transfer, including tanks, pumps and stands, and
- (e) installs insulated rail joints so as to electrically separate the section of railway track on which any unit of rolling stock stands from all other railway track.

4.2 Permanent bonding and grounding must be installed and inspected in accordance with the American Railway Engineering and Maintenance of Way Association, Communications and Signals Manual of Recommended Practice (AREMA).

4.3 A resistance earth test must be conducted every 2 years and the test results must be retained on file for a period of 3 years. Test records must be made available for inspection by a railway safety officer on reasonable request.

5 Additional grounding measures

5.1 Where the grounding required under Rule 4 is difficult to implement because of local conditions, the industrial railway operator shall take such additional measures, including the installation of insulated rail joints in the piping system, the provision of additional ground rods or the provision of additional bonds between the piping system and the units of rolling stock, as may be required, to ground the section of railway track.

6 Tanks with cathodic protection

6.1 Where the tanks of a piping system have cathodic protection, the tanks must be grounded in a manner that does not interfere with the cathodic protection.

7 Insulated rail joints

7.1 Insulated rail joints that are installed in accordance with Rule 4.1(e) must not be bridged by rolling stock or any other means during the transfer operations.

8 Transfer of dangerous goods near transmission lines

8.1 No transfer of dangerous goods between a unit of rolling stock and a stationary bulk storage that is constructed after the coming into force of these Rules may be made within 150 metres of a power transmission line that has a voltage of 360 kV or more or within 75 metres of a power transmission line that has a voltage of 230 kV to 259 kV.

9 Rolling stock must be grounded

9.1 Rolling stock and highway cargo tanks must be grounded

- (a) with temporary bonds connected between the piping system with a pull off connector attached so as to be in electrical contact with the rolling stock or a highway cargo tank, and

- (b) before the dome or bottom loading valves are opened and must remain in place until the transfer is completed and all valves and dome covers have been closed and secured.

Dangerous Goods with Any Classification

10 Debris and vegetation

10.1 The area within 25 feet of a loading rack must be free of debris and vegetation.

11 Derail required

11.1 Rolling stock must be protected during the loading or unloading of dangerous goods by a derail that is locked with a lock that is controlled by the facility. The derail must be located at a minimum of one car length from the tank car on the connected end(s) of the track.

12 Sign required

12.1 During loading or unloading operations, the rolling stock must be protected on the connected end(s) of the track by a sign that is constructed of metal or other durable material and having a dimension that is equal to or greater than 30 x 38 centimetres (12 x 15 inches) and bears the words “STOP” (as a minimum) in white capital letters equal to or greater than 10 centimetres (4 inches) in height on a blue background.

12.2 Signage must be placed on the loading track in a manner that it is always visible to the crew of an engine.

13 Loading or unloading operations

13.1 During loading or unloading operations, the rolling stock handbrakes must be kept applied and one set of wheels must be blocked/chocked in both directions on at least

- (a) one car for a one-or 2-car coupled string, or
- (b) 2 cars for a 3-to 9-car coupled string plus an additional car for every block and any fraction of block of 10 cars in excess of the first 9 cars coupled to a string, including the first and last cars of the string.

14 Monitoring of rolling stock

14.1 Rolling stock must be monitored by direct, remote or automated means during loading or unloading so that any condition or release of dangerous goods from a railway vehicle that could endanger public safety can be promptly identified.

15 Fire extinguishers required

15.1 Portable fire extinguishers must be installed and maintained in accordance with the current Alberta Fire Code.

Schedule 8

Industrial Railway Employee Qualifications Standards

1 Definitions

1.1 In these Rules,

- (a) “candidate” means an employee who is required to undergo examination and on-the-job training in accordance with these Rules in order to be qualified to work in an industrial railway yard;
- (b) “classroom training instructor” means a person who is qualified under these Rules to give classroom instruction;
- (c) “engine” means a locomotive, rail car mover, winch or other equipment used to move rail cars;
- (d) “examiner” means a person who is qualified under these Rules to examine employees;
- (e) “on-the-job training” means instruction provided by an on-the-job training instructor to an employee working in an industrial railway yard;
- (f) “on-the-job training instructor” means a person who is qualified under these Rules to instruct employees during on-the-job training;
- (g) “rail car mover” means a rail vehicle, other than a locomotive, propelled by any energy form intended for the propulsion or control of freight or service equipment;
- (h) “rail equipment” means one or more engines or rail cars that can be handled on their own wheels in a movement;
- (i) “required subject” means a subject listed in the Appendix;
- (j) “safety critical position” has the meaning given to it under Schedule 9.

1.2 When the term “movement” is used in these Rules, it refers to an engine or engines coupled with or without rail cars that are about to operate, or are operating, on railway track.

2 Training programs must be established

2.1 An industrial railway operator shall establish employee training programs for its employees directly involved in industrial railway yard operations.

3 Person must be competent to work in an industrial railway yard

3.1 Subject to Rule 3.2, no industrial railway operator shall permit an employee to work in an industrial railway yard unless the employee is competent to work in an industrial railway yard in accordance with Rule 7.1.

3.2 An employee undergoing on-the-job training may perform the duties for which the employee is a candidate under the direction of an on-the-job training instructor for the duration of the employee's training period.

4 Extent of on-the-job training

4.1 An industrial railway operator shall provide its employees working in an industrial railway yard with on-the-job training in respect of the required subjects to enable them to demonstrate to on-the-job training instructors and examiners that they are competent to perform their required duties.

5 Passing mark for on-the-job training

5.1 No examiner shall issue a passing mark for on-the-job training unless the examiner

- (a) is satisfied that the candidate is competent to perform the required duties by assessing the candidate's competency in actual industrial railway yard operations, and
- (b) has completed, signed and placed on the candidate's personnel file a document indicating that the candidate has received a passing mark for the on-the-job training.

6 Examinations

6.1 An examiner shall determine the overall mark for a candidate based on written or oral examinations, or both, dealing with the required subjects.

7 Qualification standards for candidates

7.1 The subjects required for an employee to qualify to work in an industrial railway yard are the subjects listed in the Appendix.

7.2 No industrial railway operator shall qualify an employee to work in an industrial railway yard unless the employee obtains a mark of at least 80% in each required subject.

8 Qualification standards for on-the-job training instructors

8.1 No industrial railway operator shall qualify a person as an on-the-job training instructor unless the person meets the qualification requirements to work in an industrial railway yard with a mark of at least 80% in each required subject and demonstrates that the person is competent in the function being instructed.

9 Qualification standards for classroom training instructors

9.1 No industrial railway operator shall qualify a person as a classroom training instructor for a required subject unless the person has

- (a) obtained a mark of at least 90% in a written examination on that subject, and
- (b) received training in instructional delivery.

10 Qualification standards for examiners

10.1 A person who is a classroom training instructor is qualified to act as an examiner on the subjects on which the person is qualified to give instruction.

11 Re-examination

11.1 An industrial railway operator shall, at intervals of not more than 3 years, have each employee who has been qualified to work in an industrial railway yard re-examined.

11.2 A re-examination must consist of

- (a) a review or test, or both, of an employee's knowledge of required subjects, and
- (b) hands-on competency evaluation of actual job tasks measured against a defined level of performance.

11.3 The passing mark for re-examination is 80% for each subject.

11.4 Recurrent training can be either classroom or computer-based training.

12 Copies of examinations must be kept on file

12.1 An industrial railway operator shall retain on file a copy of each type of classroom examination and a copy of a detailed description of each method of assessing on-the-job competence used by the operator.

13 Examination records must be kept on file

13.1 An industrial railway operator shall maintain an examination record for each employee examined in accordance with these Rules.

14 Record of training programs must be kept on file

14.1 An industrial railway operator shall retain on file a full description of its employee training programs related to industrial railway yard operations.

14.2 An industrial railway operator shall maintain for each calendar year a comprehensive record of its employee training programs conducted during that year, including recurrent training.

14.3 A record under Rule 14.2 must specify

- (a) the total number of employees involved with industrial railway yard operations,
- (b) the total number of employees who received training with respect to industrial railway yard operations, and
- (c) the number of employees who received training and met the training requirements with respect to industrial railway yard operations.

14.4 Records referred to in these Rules must be kept for at least 3 years.

**Appendix
Required Subjects**

The following tables outline the subject matter that must be included as a minimum in training programs for employees directly involved in industrial railway yard operations. It is the responsibility of each industrial railway operator to identify the specific content that is applicable to its respective operations.

**Table A
Training Requirements**

1 Employees holding safety critical positions in an industrial railway yard require training as noted in Items 1, 2 (when required), 3, 4, 5, 6, 7, 8 and 9.

2 Employees directly involved in the movement of rail equipment in an industrial railway yard require training as noted in Items 1, 2 (when required), 3, 4, 5, 6 and 7.

3 Employees not directly involved in the movement of rail equipment in an industrial railway yard require training as noted in Items 2 (when required), 3, 4, 6 and 10.

Item		Description
1	Industrial Railway Operating Rules (IROR), including Railway Radio Communication Rules	Applicable operating rules as per Schedule 1 to the Industrial Railway Regulation.
2	Dangerous Commodities	As per the Transportation of Dangerous Goods Regulations (Canada).
3	Car Air Brake Systems	Identify and explain the purpose of each major component of a rail car air brake system and how they operate.
4	Car Securement	Identify and apply the rules that apply to the use and testing of handbrakes in securing equipment.
5	Equipment Handling and Switching Strategies	Identify the operating conditions that will affect the selection of the safest and most effective equipment handling and switching strategies, and apply these strategies safely.
6	Freight Car Inspection	Schedule 4 to the Industrial Railway Regulation.
7	Core Safety Rules	Explain and apply basic safety rules for working in and around rail equipment, including but not limited to the following: <ul style="list-style-type: none"> ● on or about tracks ● 3-point protection ● entraining/detraining/crossing over/riding equipment ● hand operated switches (throwing, cleaning) ● operating derails ● coupling/adjusting misaligned coupler

Item		Description
8	Engine operation	Identify and apply the rules and procedures for: <ul style="list-style-type: none">● safely starting the equipment● the considerations and steps for initiating movement● the considerations to be made while operating● engine brakes● safety control systems
9	Engine inspection	<ul style="list-style-type: none">● Identify and apply the steps to be taken in inspecting the equipment● Develop and implement a plan for equipment inspection appropriate for the equipment being used
10	Basic core safety Rules	Explain and apply basic safety rules for working in and around rail equipment, including but not limited to the following: <ul style="list-style-type: none">● on or about tracks● entraining/detraining/crossing over equipment● operating derails● use of blue flags

Schedule 9

Industrial Railway Safety Critical Positions Rules

1 Interpretation

1.1 In these Rules,

- (a) “engine” means a locomotive, rail car mover, winch or other equipment used to move rail cars;
- (b) “rail car mover” means a rail vehicle, other than a locomotive, propelled by any energy form intended for the propulsion or control of freight or service equipment;
- (c) “safety critical position” means a railway position directly involved in the operation of an engine.

1.2 Any person performing any of the duties normally performed by a person holding a safety critical position is deemed to be holding a safety critical position while performing those duties.

1.3 Any person involved in the operation of an engine is deemed to be holding a safety critical position.

2 Records to be kept

2.1 An industrial railway operator shall

- (a) maintain a list of all occupational names or titles in safety critical positions,
- (b) maintain a list of the names of all employees competent to serve in safety critical positions, and
- (c) make the lists referred to in clauses (a) and (b) available for inspection by a railway safety officer on reasonable request.

Schedule 10

Industrial Railway Medical Rules for Positions Critical to Safe Industrial Railway Operations

1 Definitions

1.1 In these Rules,

- (a) “engine” means a locomotive, rail car mover, winch or other equipment used to move rail cars;
- (b) “medical officer” means a licensed medical practitioner who is employed or contracted by an industrial railway operator for the purpose of conducting medical fitness for duty assessments;
- (c) “rail car mover” means a rail vehicle, other than a locomotive, propelled by any energy form intended for the propulsion or control of freight or service equipment;
- (d) “safety critical position” means a railway position directly involved in the operation of an engine.

2 Frequency of medical assessments

2.1 An employee must undergo a medical fitness for duty assessment

- (a) before occupying a safety critical position,
- (b) subject to Rule 2.2, on promotion or transfer to a safety critical position, and
- (c) every 5 years until the age of 40, and every 3 years after that date until the employee retires or no longer occupies a safety critical position.

2.2 Despite Rule 2.1(b), no medical fitness for duty assessment is required under that Rule if the employee is transferring from one

safety critical position to another safety critical position that, in the opinion of the medical officer, has similar mental and physical demands as the previous safety critical position.

2.3 The medical officer may require an employee to undergo additional medical fitness for duty assessments if the employee

- (a) has or may have a medical condition that requires frequent monitoring, or
- (b) is returning to work in a safety critical position after a medical leave of absence.

3 Medical fitness for duty assessments

3.1 The medical officer shall assess an employee's medical fitness for duty on an individual basis taking into consideration both past and current medical conditions that could result in

- (a) sudden impairment,
- (b) impairment of cognitive function, including alertness, judgment, insight, memory and concentration,
- (c) impairment of senses,
- (d) significant impairment of musculoskeletal function, or
- (e) other impairment that is likely to constitute a threat to safe individual railway operations.

3.2 The medical conditions referred to in Rule 3.1 include the following:

- (a) diseases of the nervous system, including seizure disorders, narcolepsy, sleep apnea and other disturbances of consciousness, vestibular disorders, disorders of coordination and muscle control, head injury, post-traumatic conditions and intracranial tumours;
- (b) cardiovascular diseases, including high blood pressure, coronary artery disease, myocardial infarction, cerebrovascular disease, aortic aneurysm, congestive heart failure, cardiac arrhythmia, valvular heart disease and cardiomyopathy;
- (c) metabolic diseases, including diabetes mellitus, thyroid disease, Cushing's disease, Addison's disease and pheochromocytoma;

- (d) musculoskeletal disabilities, including amputation of a limb, arthritis, significant joint dysfunction, disease of the spine, obesity or other significant musculoskeletal conditions;
- (e) respiratory diseases, including obstructive or restrictive conditions resulting in functional impairment;
- (f) mental disorders, including
 - (i) dementias, delirium and amnesia,
 - (ii) psychotic, including schizophrenia,
 - (iii) mood, including depression, manic and bipolar,
 - (iv) anxiety, including panic attacks and phobias, and
 - (v) personality resulting in anti-social, erratic or aggressive behaviour;
- (g) substance abuse, including abuse or dependence on alcohol, prescription medications or illicit drugs;
- (h) hearing impairment, including hearing acuity;
- (i) visual impairment, including distant visual acuity, field of vision and colour vision;
- (j) any other organic, functional or structural disease, defect or limitation that is likely to constitute a threat to safe individual railway operations.

3.3 In addition to taking into consideration the employee's current medical conditions, the medical officer shall also take into consideration

- (a) the occupational demands of the employee's job and the employee's ability to meet those demands,
- (b) the employee's performance record, and
- (c) any prescription or over-the-counter medication that the employee is using or has used that may cause mental or physical impairment that affects judgment.

3.4 Despite Rules 3.1 and 3.2, the medical officer may determine that any additional assessments required under Rule 2.3 may be limited to assessments of particular medical conditions.

4 Medical restrictions

4.1 If, in making an individual assessment of an employee's medical fitness for duty, the medical officer is of the opinion that there exists a threat to safe industrial railway operations, the medical officer may

- (a) prohibit the employee from occupying a safety critical position,
- (b) restrict the use of corrective devices or other medical aids, or
- (c) otherwise restrict the employee's ability to work or perform certain tasks in a safety critical position.

4.2 On completion of a medical fitness for duty assessment, the medical officer shall advise the employee who is the subject of the assessment and the employee's supervisor of

- (a) the employee's medical fitness for duty, and
- (b) any prohibitions or restrictions imposed by the medical officer under Rule 4.1.

5 Records

5.1 The industrial railway operator shall maintain a record of all employees' medical fitness for duty assessments and any prohibitions or restrictions imposed by the medical officer under Rule 4.1.

5.2 The industrial railway operator shall maintain copies of all medical policies and guidelines used by the industrial railway operator in respect of medical fitness for duty assessments.

5.3 The industrial railway operator shall make records, policies and guidelines required to be maintained under this Rule available for inspection by a railway safety officer on reasonable request.

6 Exception

6.1 These Rules do not apply to an industrial railway operator if that operator establishes and complies with appropriate alternative medical requirements suitable to the operator's particular operation.

6.2 In developing alternative medical requirements, the industrial railway operator shall

- (a) use these Rules as a guide to ensure that the alternative medical requirements achieve an equivalent level of safety,
- (b) establish appropriate rules suitable for the operator's operation in respect of its employees in safety critical positions,
- (c) maintain fitness records for each employee and make them available to a railway safety officer on reasonable request, and
- (d) maintain a copy of the alternative medical requirements.

6.3 The Railway Administrator may reject an industrial railway operator's alternative medical requirements if, in the Railway Administrator's opinion, an equivalent level of safety is not achieved.