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# CANADIAN PACIFIC RAILWAY COMPANY

## GENERAL INSTRUCTIONS PERTAINING TO THE MOVEMENT OF TRAINS, ENGINES AND CARS

APRIL 27, 1958

# INDEX


| Section | SUBJECT | Page |
|---|---|---|
| 1. | General | 3 |
| 2. | Supplementary Instructions Concerning the Operation of Dual Control Switches | 8 |
| 3. | Instructions in the Event of Death on Board Trains, or Injuries and Death as the Result of Accidents involving Trains | 10 |
| 4. | Instructions Pertaining to Steam and Diesel Locomotives | 16 |
| 5. | Duties of Engineman | 18 |
| 6. | Duties of Enginemen (Enginemen and Firemen) | 28 |
| 7. | Instructions Concerning the Handling of Disabled and Dead Locomotives or Diesel Units in Trains | 29 |
| 8. | Regulations Governing the Appearance and Deportment of Uniformed Conductors and Trainmen on Duty | 32 |
| 9. | Rules and Regulations Governing the Handling of Vestibule Doors, Platforms, Curtains, Guard Rails, Side and End Gates, Tail Gates, Chains and Bars on Equipment Handled on Passenger or Mixed Trains | 33 |
| 10. | Time Service Regulations | 36 |
| 11. | Handling of Livestock | 39 |
| 12. | Tank Cars | 44 |
| 13. | General Instructions re Handling Cars of Explosives, Poison Gas, Class 'D' Poison and Placarded Trucks or Trailers on Cars or Placarded Tank Cars in Trains | 46 |
| 14. | Radioactive Materials | 50 |
| 15. | Handling of Automobiles or other Self-Propelled Vehicles in Cars or on the Premises of the Company | 54 |
| 16. | Connivance in Illegal Transportation by Railway Employees. Section 344 of Criminal Code | 57 |
| 17. | Prevention and Extinguishing of Fires on or in the Vicinity of Right-of-Way | 59 |
| 18. | Instructions in the use of Fire Extinguishers and procedure to follow in case of fire | 63 |

## 1. GENERAL

(a) Air brakes must be in service and automatic brake used when handling or switching passenger equipment occupied by passengers and when other than a light engine is being coupled to passenger equipment occupied by passengers; except that straight air brakes may be used on a multiple unit consist up to a maximum of six rail diesel cars when operating under their own power and not handling other equipment.

Before uncoupling passenger equipment it must be known that trainlines for public address systems, and other electrical circuits if any, also diaphragm curtains, are disconnected.

(b) Engine or cars being attached to passenger equipment occupied by passengers, or passenger equipment occupied by passengers being coupled to other equipment or being placed against stop block, must be brought to a stop from six to ten feet from the equipment to which they are to be coupled or from stop block. Upon the proper signal, coupling must be made carefully to avoid shock.

(c) Steam engines running tender first, other than those equipped with pilot on tender, and diesel engines not controlled at the leading end, making backward movements, must not exceed a speed of twenty-five miles per hour.

(d) Headlights on diesel engines and on leading end of rail diesel cars used in road service are to be kept lighted during daytime as well as by night, subject to the requirements of Rule 17, Uniform Code of Operating Rules.

(e) When a diesel engine consisting of more than two units is required to make back-up movements over or along a public road at grade, a member of the crew must be on the unit leading the movement in compliance with Rule 103 U.C.O.R.

(f) Diesel units of different gear ratios may be coupled and operated together. When this is done, the speed of train must be restricted to that of the lowest geared unit on the train, including those being moved idling or dead.

(g) Except in emergency the maximum number of diesel units which may be coupled together at the headend of a train shall be such as to limit the number of driving axles to a total of sixteen. Any additional units either assisting, idling or dead must be marshalled in accordance with Clause (c), Section 7 of this booklet. When emergency conditions require, and the current locomotive authorization chart permits the coupling of units with more than a total of sixteen driving axles, the following precautions must be taken to minimize lateral thrusts caused by "jacknifing."

(1) Reduction in tonnage to sixty percent of "A" rating of the maximum number of units which can be coupled under normal conditions, or

(2) Elimination of use of dynamic braking on all units and avoidance of back-up (shoving a train) movements, especially up grade, except for short distances and then only with extreme caution.

(h) Should diesel engines moving light, gas-electric cars, or rail diesel cars operating in automatic signal territory be stopped on sand,

whether sanders are operated manually or automatically, the engine, or cars, must be moved off the sanded rail immediately to ensure proper operation of automatic signals.

(i) Diesel units should not be operated through water of a depth of more than three inches above top of rail. They may be operated through water if the depth is less than three inches above top of rail, but at a speed not exceeding three miles per hour. Should it be necessary for a diesel unit to be operated or handled through water above rail level, report must be made at the first terminal.

(j) In all instances where diesel units or rail diesel cars are required to be set out on line hand brakes must be applied and it must be known that the brake shoes on which the hand brakes operate are firm against the wheels and holding. If hand brake is inoperative the unit must be coupled to equipment having operative hand brakes which must be applied. Doors must be locked, using coach key.

(k) Diesel units or Rail Diesel Cars must not be allowed to stand over hot ashes on the track or in open ashpits; and should not be operated over open ashpits unless it is known that the fire is out. They should not be operated over open flame on tracks where gasoline, oil, or gas is being burned for such purposes as the melting of snow and ice.

(l) An unattached engine, car, or other unit must not be left standing within interlocking limits of a railway crossing at grade, nor on the movable portion of a drawbridge in automatic block signal system territory.

(m) At public crossings at grade at which there are automatic warning devices to indicate the approach of trains or engines on main tracks, movements over such crossings on other than main tracks must not, unless otherwise provided, exceed ten miles per hour from one hundred feet distant until the engine or leading car has passed over the crossing. For main track movements against the current of traffic, see time table footnotes.

(n) At public crossings at grade where automatic warning devices require to be operated by the use of push buttons, referred to in time table footnotes or instructions, movements must not obstruct the crossing in less than twenty seconds after push button has been operated.

(o) In all instances where automatic highway crossing warning devices fail to operate, or operate improperly, a watchman must be placed at such crossing as quickly as possible in order that users of it may be adequately protected until repairs are effected. If this protection covers more than four tracks, two watchmen must be used, (one on each side of the tracks). Employees observing the improper operation of any such device shall notify the train dispatcher as soon as possible who in turn will immediately notify the signal maintainer.

(p) A train or engine having sounded engine whistle signal 14(1) U.C.O.R. and having been brought to a stop before passing over a public road crossing will, if the location of the train or engine in relation to the crossing or other circumstances warrant, again sound the signal before passing over crossing.

(q) Enginemen should exercise care and judgment in giving public road crossing warnings as prescribed by Rule 14(1) U.C.O.R. Under normal conditions, when the signal is given clearly and of sufficient duration, it gives effective warning. There are situations, however, which, in addition to strict compliance with the rule, require that enginemen use discretion as to giving additional warnings such as on slowly moving trains, during adverse weather, and where it is probable that trains in opposite directions will pass one another at or near the crossing.

(r) Before coupling to or moving occupied boarding cars or other units of occupied work equipment stop must be made and when practicable, persons in, on or about them notified. Upon the proper signal, coupling must be made carefully to avoid shock. Occupied boarding cars must not be cut off in motion nor may other cars be cut off in motion toward them.

(s) As damage to equipment and lading is likely to occur when speed at time of coupling cars together exceeds 4 M.P.H. couplings in excess of such speed should not be made.

When switching shed, team or industrial tracks, partly loaded or unloaded cars containing commodities subject to damage due to load shifting, unless properly stowed or braced, should be handled with extreme care.

(t) The use by employees in road and yard service of coloured glasses, goggles, or other devices which injuriously affect either acuteness of vision or colour perception is prohibited.

## 2. SUPPLEMENTARY INSTRUCTIONS CONCERNING THE OPERATION OF DUAL CONTROL SWITCHES

(a) WHERE SIGNAL AT A PARTICULAR LOCATION CANNOT BE CLEARED:—

1. When a train or engine is stopped at signal, verbal authority must be obtained from signalman to pass stop signal.

2. Signalman must see that switch control lever is in proper position, provide protection against opposing movements, and may then authorize train or engine to pass signal.

3. Before train or engine proceeds, the following must be complied with:

(a) FOR ALL FACING POINT MOVEMENTS — in complying with Rule 680 U.C.O.R. place selector lever in HAND position and then operate HAND THROW lever until it is determined that movement of points follows hand throw lever and that points are in proper position.

(b) FOR ALL TRAILING POINT MOVEMENTS — see that switch properly lined. If not properly lined, place SELECTOR lever in HAND position and then operate HAND THROW lever until points are in proper position. Selector lever may then be restored to POWER or MOTOR position.

4. Upon completion of all movements over switch, if last movement was in facing point direction, or in trailing point direction with selector lever in HAND position, train must be stopped, switch restored to NORMAL position

(Rule 104 U.C.O.R.) unless otherwise instructed by signalman, and selector lever placed in POWER or MOTOR position, locked and signalman so advised before train proceeds.

(b) IN CASES WHERE SIGNAL SYSTEM INOPERATIVE AND TRAIN MOVEMENTS AUTHORIZED BY TRAIN ORDER FORM X, EXAMPLE 2.

1. When train dispatcher has been informed by signal supervisor that all switches involved have been secured in NORMAL position with selector levers in HAND position, he may then modify order by adding words "all switches secured in normal position and selector levers in hand position".

2. The conductor of each train using a dual control switch in other than normal position is responsible for knowing that after movement has been completed, the switch has been lined and locked in NORMAL position and that selector lever is in HAND position, before permitting train to proceed.

3. Signal supervisor must not restore switches to POWER or MOTOR position until informed by train dispatcher that portion of Form X order, Example 2, reading "All switches secured in normal position and selector levers in hand position" has been annulled to all trains affected.

## SPECIAL INSTRUCTIONS PERTAINING TO INTERLOCKING SIGNALS

If the stop indication of an interlocking signal (other than at an automatic interlocking) continues for five minutes, when no conflicting movement is apparent, communicate with the signalman at once.

## 3. INSTRUCTIONS IN THE EVENT OF DEATH ON BOARD TRAINS OR INJURIES AND DEATH AS THE RESULT OF ACCIDENTS INVOLVING TRAINS

These instructions will apply in all cases where there has been a train accident involving death or serious personal injury, or where death has occurred on board train otherwise than as the result of accident, and are intended to avoid delay in the operation of trains and to protect the interests of crew members and of the Company at inquests or in subsequent legal proceedings.

When a fatality has occurred due to accident or otherwise, crews should report the fact immediately to the local police and request that the coroner be notified and that a doctor be summoned to the scene.

When an accident involving serious personal injury has occurred, the local police and a doctor should be summoned to the scene, or, if the circumstances warrant, the injured person may be taken on the train to the next station in the direction in which the train is going where medical assistance can be obtained.

If a Company's medical officer is available, he should be advised.

It is permissible for trains to leave the scene before the arrival of the police or coroner, provided that some responsible person (an employee where practicable) is left in charge; that person should inform the police, or coroner particulars of the occurrence, including the

number and direction of the train, the names and addresses of the crew, and the direction in which any vehicle was moving at the time of impact.

Care should be taken not to disturb any wreckage more than is necessary to permit the starting of the train. If it is necessary to move a body, the person left in charge must be able to advise the police or coroner of the original position in which it was found. If the accident occurs in a remote locality where it is impracticable to notify the police or coroner, or if the accident occurs in such circumstances that the police or coroner are not likely to arrive for a long time and if it is not practicable to leave a responsible person in charge, a body may be taken to and left at the next station in the direction in which the train is going, with a responsible person left in charge to advise the police and the coroner of the facts.

The crew should not give or sign statements other than for an officer of the Company. However, if requested by the coroner or a police officer to give statements, crews may state such general facts as: their names and addresses; the number and direction of the train; the place and time of the accident and the direction of approach of the person or vehicle, but under no circumstances should crews express opinions as to the cause of a mishap, nor attempt to estimate speeds or distances.

To avoid delay to trains, arrangements should be made with police officers or coroners for any statements required, to be given on arrival at terminals in the presence of a railway officer.

Members of the train crews and other employees of the Company who may be on the scene or otherwise concerned in an accident, should make notes of all relevant facts so that they will be in a position to give detailed information when the matter is being investigated by the Company.

In the event of public road crossing mishap, engine bell should be kept ringing after the train or engine has stopped, until the attention of the driver and any occupants of the vehicle and outside witnesses, if any, as well as of employees, is called to the fact that the engine bell had been ringing. Attention of driver, occupants and outside witnesses should also be drawn to fact that headlight, if required to be lit, is burning brightly and that gyra-lite, if applied, is functioning.

Where possible, the following information should be recorded:—

Name and address of owner, driver and occupants of vehicle;
Position in vehicle of each passenger;
Identification of casualties;
Make, type and Provincial or State license number of vehicle;
Direction and speed of vehicle approaching and passing over crossing;
Point of impact on train or vehicles;
Damage to vehicle and railway equipment;
Weather, road conditions and visibility;
Position of vehicle after mishap, windows clean or dirty, open or closed, steamed or frosted, if glass broken out ascertain position of window mechanism; radio on or off;

Evidence of intoxicants;
Description of skid marks, if any, on road;
Number of rail lengths beyond crossing where train stopped;
Type of protective appliance at crossing and whether functioning properly;
Names and addresses of witnesses; car license numbers;
Was whistle sounded approaching crossing;
Was bell ringing approaching crossing;
Did witnesses hear whistle sounded and bell ringing;
Did witnesses observe headlight burning;
Where was engine when whistle and bell first heard, by witnesses;
Where was engine when headlight first observed, by witnesses;
Name and address of coroner and doctor called;
Any other relevant information.

In the event of an accident to a passenger on a train, or to a passenger who is entraining or detraining, the names and addresses of those in the immediate vicinity should be procured at once. Train crews or other employees should examine and report on the condition of the premises or equipment where the accident occurred.

In all cases of derailment or accident to passenger cars in which Pintsch gas, propane, or commercial acetylene is used, the supply must be shut off as quickly as possible. To shut off the supply of Pintsch gas a combined main cock and tank valve key will be found in the pressure gauge box. For other gases valve is located at supply tank.

In the case of derailments, collisions, failure of locomotive boiler, highway crossing accidents, when the same are attended with personal injury to any person using the railway, or to any employee of the Company; all other accidents occurring on the railway, attended by personal injury to any person using the railway, or to any employee of the Company, and in which accidents the movement of trains, engines or cars is involved, (but not in the case of accidents occurring in railway shops, manufacturing establishments, or other places of the railway company in which the movement of trains, engines, or cars is not involved in the accidents) and any damage caused by any such accident, to any bridge, culvert, viaduct or tunnel on the railway, rendering the same impassable or unfit for immediate use, (and whether attended by personal injury to any person or employee of the Company or not) the conductor or other employee of the railway company who is in charge of the train, place or structure in connection with which the accident occurred, shall, at the expense of the company, and at the same time as he reports to the Company, send a telegram addressed to the Director of Operation, Board of Transport Commissioners for Canada, Ottawa, containing the following information:—

(a) Date and place;

(b) Name of railway;

(c) Number and description of train or trains, engine or engines concerned;

(d) Number of passengers, employees, or others killed and injured;

(e) Statement of any damage to any bridge, culvert, viaduct or tunnel;

(f) A short, concise statement of the apparent cause of the accident;

(g) Name and title of person sending report.

Copy of such message sent to be immediately transmitted to Superintendent's office. Other accidents occurring as a result of transportation which are required to be reported to the Board, will be reported by the Superintendent.

Fires on diesel-electric locomotives which involve hazard or injury to train service employees and which affect the safe operation of trains must also be reported to the Director of Operation, Board of Transport Commissioners.

The above instructions should be carefully read. Only such accidents as are specifically mentioned are to be reported to the Board of Transport Commissioners by wire. Other accidents should be reported in accordance with standing instructions on the subject.

NOTE:—"Highway Crossing" means public crossing at grade and does not include private or farm crossings.

## 4. INSTRUCTIONS PERTAINING TO STEAM AND DIESEL LOCOMOTIVES

(a) To avoid injury to employees or passengers on passing trains and platforms, pokers and other movable tools on locomotives, when not in use, must be secured so that they will not project beyond the sides of locomotives or tenders.

(b) When necessary to clean ashpans of locomotives, they must not be opened on bridges, switches or frogs, nor at any point where they may cause fire or derailment. Enginemen are required to see that cinders are levelled down and fire extinguished before they are left. See Rules 104a and 667, Uniform Code of Operating Rules.

(c) Front end netting or other fire protective appliance must not be injured or damaged in any way.

(d) In case of accident to boiler or its attachments, whether resulting in injury or not, part or parts affected by the accident must not be disturbed insofar as possible until after inspection by appropriate authorities.

(e) In case of leaky crown staybolts or damage to the crown sheet, whether involving personal injury or not, the conditions must be reported immediately to the Locomotive Foreman.

(f) Blow-off cocks must not be operated nor permitted to operate at or near stations, nor at other locations where there is danger of scalding persons, nor when freezing temperatures prevail at locations where resultant ice accumulation will cause hazardous conditions, particularly at

switches, interlockings or where signal mechanisms are located. Automatic blowdown systems should be controlled, where necessary, by cutting out the toggle switch which will make the blowdown system inoperative.

(g) In case of mishap or fire to diesel units or rail diesel cars, the engines and fuel pumps should be stopped, emergency fuel cutoffs tripped and battery switches opened as soon as possible.

(h) When passing over diamonds or intersections the throttle on diesel unit should be placed in first to fifth notch, consistent with speed restrictions to prevent damage to electrical equipment from flashovers.

(i) In case of injury or death resulting from an accident to a steam generator or diesel engine the parts of equipment involved should, if possible, be left undisturbed until after inspection.

(j) Employees should avoid placing feet on any valve wheel or handle.

(k) Before working in the engine room or electrical cabinets, employees should shut down the engine unless required for test or inspection.

(l) Air box hand-hole covers should not be removed while the engine is running.

(m) Engine base doors should not be opened within a half hour after shutting the engine down.

(n) When necessary to enter separate radiator compartment, employees must first shut the engine down.

## 5. DUTIES OF ENGINEMAN

### TAKING CHARGE OF LOCOMOTIVE (STEAM) AT MAINTENANCE POINT

(a) Blow out the water glass and test the gauge-cocks and try-cocks.

(b) Check the water pump and injectors, also water supply.

(c) Check lights including headlight, signal (classification) lights and back-up light and see they are all working.

(d) Know that flagging equipment is on the locomotive and in good order.

(e) Check that bell and whistle are in working order.

(f) On stoker-equipped locomotives, check the stoker for satisfactory operation.

(g) Lap the automatic brake valve. Start the air compressor slowly with all drains open, ensuring that lubrication is supplied to the compressor. Close the air reservoir drain cocks and dirt collector drain cocks, and close the drains on the compressor when the steam is clear of condensation.

(h) The compressor speed should not be increased until the air pressure has built up sufficiently to cushion the pistons. When maximum main reservoir pressure has been obtained, move the automatic brake valve handle to release position until the brake pipe is thoroughly blown out, then close the air train line and signal line cocks at front and rear of locomotive.

(i) Open the cylinder cocks and exhaust passage cocks.

(j) First apply brake then open the throttle slightly and move the reverse gear between forward and reserve positions several times to clear water from cylinders.

(k) The locomotive may then be moved slowly with cylinder cocks open to drain any additional water which may remain in the cylinders. Then close the cocks and proceed.

## TAKING CHARGE OF LOCOMOTIVE (STEAM) AT A RUN THROUGH POINT

(a) Examine the work report of the incoming engineman.

(b) Check lights including headlight, signal (classification) lights and back-up light and see that they are all working.

(c) Blow out water glass, test the gauge-cocks, try-cocks and check water supply. Check firebox.

(d) Know that flagging equipment is on engine and in good order.

(e) Check that bell and whistle are in working order.

(f) Make brake test as required.

## BEFORE LEAVING THE LOCOMOTIVE (STEAM) WHEN GOING OFF DUTY AT A RUN THROUGH POINT

(a) Complete Form M.P. 74.

## BEFORE LEAVING LOCOMOTIVE (STEAM) UNATTENDED OR WHEN GOING OFF DUTY — AT OTHER THAN A RUN THROUGH POINT

(a) See that the fire is in proper condition.

(b) See that the water glass gauge-cocks are open in operating position, and that the water level in the boiler is at least three-quarters of a glass with the water level visible.

(c) See that the throttle is closed and secured.

(d) See that the independent or straight air brake is left fully applied.

(e) See that blow-off cocks are closed.

(f) See that the toggle switch is in "OFF" position on panel of locomotives equipped with automatic blow-down system.

(g) See that a safety chain when provided is properly placed, where provided, around one or more driving wheels.

(h) See that cylinder and exhaust passage cocks are open and check that relief valves are open.

(i) See that the reverse gear is in centre position; check to see that the link block is placed on dead centre of link.

(j) Heater line to oil tank on oil-burning locomotives should be examined to be sure that oil will remain at suitable temperature.

(k) If the locomotive is equipped with Elesco type feedwater heater, the condensate line should be drained and the condensate valve left open.

(l) Complete Form M.P. 74 when going off duty.

## FREEZING WEATHER — IN ADDITION TO ABOVE

(m) Heater lines to the feedwater pump, mechanical lubricator, inspirator suction lines, booster and stoker engines, and steam heat bypass must be turned on, when the locomotives are so equipped.

(n) The water pump operating valves should be cracked open sufficiently to keep the pump barely working.

(o) Dynamo should be kept running to prevent freezing.

(p) Heater line to oil tank on oil-burning locomotives should receive special attention to see that oil is kept at suitable temperature for winter conditions.

(q) A main reservoir drain cock should be cracked open to allow the escape of sufficient air to keep air compressor barely operating.

## TAKING CHARGE OF AND BEFORE MOVING A LOCOMOTIVE (DIESEL) AT MAINTENANCE POINT

(a) Apply and release the air brakes and operate the communicating signal to ensure that they are in working order.

(b) Check lights, including cab, hood, signal (classification) and headlight and back-up light, and see that they are all working.

(c) Know that flagging equipment is on the unit and in good order.

(d) Know that fire extinguishers are in place on each unit and seals not broken.

(e) Check hand brakes to ascertain if properly released.

(f) Check that bell and whistle are in working order.

## WHEN TAKING CHARGE OF LOCOMOTIVE (DIESEL) AT OUTSIDE POINT WHERE NO SHOP STAFF IS ON DUTY OR AVAILABLE

(a) Start up engines as prescribed, if shut down.

(b) See that air brake system is set up for the required service.

(c) Apply and release the air brakes and operate the communicating signal to ensure that they are in working order.

(d) Check lights, including cab, hood, signal (classification) and headlight and back-up light and see that they are all working.

(e) Know that flagging equipment is on the unit and in good order.

(f) Know that fire extinguishers are in place on each unit and seals not broken.

(g) Check hand brakes to ascertain if properly released.

(h) Check that bell and whistle are in working order.

(i) Check that steam generator is operating as required, including water supply.

(j) On all units check the following:—

(1) That air hoses and cable jumpers between units are properly connected and that air hoses not in use are hung up in dummy couplings.

(2) That main reservoir and control air are at required pressures.

(k) Inspect the running gear for visible defects.

(l) Blow out condensate from main reservoirs.

(m) Test the forward and reverse sanders.

## TAKING CHARGE OF LOCOMOTIVE (DIESEL) AT A RUN THROUGH POINT

(a) Examine the work report of the incoming engineman.

(b) Check lights, including headlight, signal (classification) lights and back-up light and see that they are all working.

(c) Know that flagging equipment is on unit and in good order.

(d) Check that bell and whistle are in working order.

(e) Make brake test as required.

## BEFORE LEAVING THE LOCOMOTIVE (DIESEL) WHEN GOING OFF DUTY AT A RUN THROUGH POINT

(a) Complete Form M.P. 74.

## BEFORE LEAVING A LOCOMOTIVE (DIESEL) UNATTENDED OR WHEN GOING OFF DUTY — AT OTHER THAN A RUN THROUGH POINT

### ENGINES LEFT RUNNING

(a) Set the independent brake valve in full application position and, where provided, block the wheels with a chain.

(b) Open the generator field switch. Move the selector handle or transition lever to "OFF" position. Move the reverse handle to "OFF" position and remove the handle.

(c) Except where shop staffs or other authorized persons are in attendance, if the unit is to be left outside or in an unheated engine house in freezing weather and terminal heating facilities are not available:—

(1) Know that all doors and windows are closed.

(2) See that the stand-by system of the steam generator is in operation in accordance with instructions.

(d) Complete Form M.P. 74 when going off duty.

## ENGINES SHUT DOWN

(a) Open the generator field switch. Move the selector handle or transition lever to "OFF" position. Move the reverse handle to "OFF" position and remove the handle.

(b) Shut down engines as prescribed.

(c) Release the air brakes and apply the hand brakes firmly. Remove the brake valve handles and, where provided, block the wheels with a chain.

(d) Except where shop staffs or other authorized persons are in attendance, if the unit is to be left outside or in an unheated engine house in freezing weather know that all doors and windows are closed and see that protective

heater is operating properly before leaving unit unattended.

(e) Complete Form M.P. 74.

## TAKING CHARGE OF SELF-PROPELLED CAR AT MAINTENANCE POINT

(a) Apply and release air brakes and operate communicating signal to ensure they are in working order.

(b) Check signal (classification) lights and headlight and see they are in working order. See that oscillating headlight is in proper position, when provided

(c) Know that flagging equipment is on the unit and in good order.

(d) Check that hand brakes are released.

(e) Check that bell and whistle are in working order.

## TAKING CHARGE OF A SELF-PROPELLED CAR AT A RUN THROUGH POINT

(a) Examine work report of incoming engineman.

(b) Check signal (classification) lights and headlight and see they are in working order. See that oscillating headlight is in proper position, when provided.

(c) Know that flagging equipment is on unit and in good order.

(d) Check that bell and whistle are in working order.

(e) Make brake test as required.

(f) Check that hand brakes are released.

## TAKING CHARGE OF A SELF-PROPELLED CAR AT OUTSIDE POINT WHERE NO SHOP STAFF IS ON DUTY OR AVAILABLE

(a) Start up engines as prescribed, if shut down.

(b) Apply and release air brakes and operate communicating signal to ensure they are in working order.

(c) Check signal (classification) lights and headlight and see they are in working order. See that oscillating headlight is in proper position, when provided.

(d) Know that flagging equipment is on the unit and in good order.

(e) Check that hand brakes are released.

(f) Check that bell and whistle are in working order.

(g) In all cars in multiple service check that air hose and cable jumpers between cars are connected and cutout cocks in proper position.

(h) Examine the running gear for visible defects.

(i) Blow out condensation from main reservoirs.

(j) Try sanders.

## BEFORE LEAVING SELF-PROPELLED CAR WHEN GOING OFF DUTY AT OTHER THAN A RUN THROUGH POINT

### ENGINES LEFT RUNNING

(a) Set straight air brake valve in full application position.

(b) Remove throttle, reverse levers, and brake handle, where removable.

(c) On gas-electric car open auxiliary generator switch.

(d) See that signal (classification) and headlight (including oscillating headlight when provided) are extinguished.

(e) Know that doors and windows are closed in operating end.

(f) Complete Form M.P. 74.

## ENGINES SHUT DOWN

(a) Shut down engines as prescribed.

(b) Release the air brakes and apply sufficient hand brakes.

(c) Remove master plug, where provided.

(d) See that signal (classification) and headlight (including oscillating headlight when provided) are extinguished.

(e) Know that doors and windows are closed in operating end.

(f) Complete Form M.P. 74.

## ON SELF-PROPELLED CAR WHEN GOING OFF DUTY AT A RUN THROUGH POINT

(a) Complete Form M.P. 74.

## 6. DUTIES OF ENGINEMEN

### ENGINEMEN AND FIREMEN

(a) The duties of firemen on diesel units are as follows:—

1. To assist the engineman.

2. To comply with the provisions of the Uniform Code of Operating Rules and instructions relating thereto.

3. To operate the steam generator and its appurtenances, and take water from facilities where no maintenance or shop staff is employed. The advice or assistance of the engineman may be called upon, if required.

(b) It must be clearly understood that the engineman, not the fireman, is responsible for the diesel unit or units in his care. A fireman is not required to patrol diesel units, except as directed by the engineman or as may be required for the operation of steam generators. In the same way, when a unit has been checked by shop staffs, the fireman is not required to perform mechanical checks, nor to see that the unit is properly equipped and supplied with fuel, lubricating oil, water or sand.

(c) Firemen are to go to engine rooms only when requested by enginemen or when necessary to attend steam generators in use heating trains.

(d) The opening of engine compartment doors on road switcher units in motion is prohibited.

(e) The passing between road switcher units in motion which are not equipped with walkways is prohibited.

# 7. INSTRUCTIONS CONCERNING THE MOVEMENT OF ASSISTING, DISABLED, OR DEAD DIESEL UNITS, OR STEAM LOCOMOTIVES IN TRAINS

(a) Speed restrictions for disabled and dead locomotives are governed by gear ratio of diesel units or bridge and track limitations outlined in time tables and special instructions except that diesel units equipped with friction journal bearings, when being delivered new or after having undergone a major repair or inspection, are to be limited to a speed of thirty miles per hour for the first 100 miles, or over the first subdivision whichever is the greater.

(b) If diesel units are damaged or become defective, but are not rendered inoperative, they must be handled at a speed authorized by the Superintendent.

(c) Dead or disabled diesel units that cannot be placed at the head end of a train to comply with Section 1, Clause (g) or dead steam locomotives, must be separated from the locomotive handling the train and from other diesel units or steam locomotives by at least six cars, but in no case should a diesel unit or steam locomotive be more than sixteen cars from the locomotive handling the train, except that two diesel units may be coupled together and where the current locomotive authorization chart allows, two steam locomotives may be coupled together.

Assisting diesel units that cannot be placed at the head end of the train to comply with Section 1 Clause (g) must be located in the train as authorized by time table footnote for operation between designated points.

(d) Dead locomotives or diesel units in every instance must be accompanied by waybill, except when being moved to first terminal after failure on the line.

(e) The appropriate mechanical officer at the originating point must notify the chief dispatcher, storekeeper, yardmaster in writing of the movement of dead motive power units, specifying speed restrictions, if any, that are to be observed. This information must be stamped or written conspicuously on the face of the waybill. The yardmaster at EACH terminal other than the originating point must notify the mechanical officer who will be responsible for inspection of the motive power unit. After being advised by the mechanical officer that the motive power unit is in a safe and suitable condition for movement, the yardmaster must advise the chief dispatcher of the restrictions required and secure his authority as to the train in which the motive power unit is to be moved. The chief dispatcher must notify the connecting division of the movement and restrictions required, and the conductor and engineman of the train handling the dead units must be notified in writing by the train dispatcher.

(f) When there is a possibility of damage from freezing, all water must be drained from boilers, tenders, skimmers, cylinders, air compressors, feedwater heater and pumps, superheaters, gauge coils, and hydrostatic lubricators of dead steam locomotives before shipping. Engine cooling water and steam generator water must be drained from supply tanks and systems of dead diesel units before shipping.

(g) All dead locomotives in transit must have the brakes cut in and operating, including the driving wheel and tender brakes on steam locomotives. A locomotive having the brakes inoprative must be equipped with train line coupled to equipment at both front and rear which has operative brakes cut in.

## 8. REGULATIONS GOVERNING THE APPEARANCE AND DEPORTMENT OF UNIFORMED CONDUCTORS AND TRAINMEN ON DUTY

Patrons of the railway form impressions as to the efficiency of the employees and the excellence of the service by the appearance and deportment of men who are employed on or about the Company's passenger trains.

Clothes should be kept pressed and cleaned. Plain white or light blue shirt with dark four-in-hand tie and black shoes, properly polished, are to be worn.

Conductors and trainmen, must, at all times, be clean shaven and present a neat and tidy appearance. Caps should not be worn on the back or side of the head and should be changed when they become crushed or frayed.

Uniformed men, whose coats are intended to button, are to keep them buttoned at all times, except that train conductors and sleeping car conductors are exempted while selling or collecting tickets.

When standing by trains to entrain or detrain passengers, employees should stand erect, ready and attentive to assist passengers, using stepping boxes where provided and necessary and taking every precaution to avoid accident or injury.

Employees deadheading or off duty must not visit with employees on duty, thereby interfering with them in the performance of their work.

Employees, while on duty in or about passenger stations, or on passenger cars, should refrain from the use of chewing gum, etc.

## 9. RULES AND REGULATIONS COVERING THE HANDLING OF VESTIBULE DOORS, PLATFORMS, CURTAINS, GUARD RAILS, SIDE AND END GATES, TAIL GATES, CHAINS AND BARS ON EQUIPMENT HANDLED ON PASSENGER OR MIXED TRAINS

(a) ON THROUGH AND LOCAL TRAINS, DOUBLE TRACK, RIGHT-HAND OPERATION. When running, all vestibule doors and platforms are to be kept closed. When standing, those on right hand side only are to be opened, except when necessary to open those on left hand side to receive or discharge passengers.

(b) ON THROUGH AND LOCAL TRAINS, DOUBLE TRACK, LEFT-HAND OPERATION. When running, all vestibule doors and plarforms are to be kept closed. When standing, those on left hand side only are to be opened, except when necessary to open those on right hand side to receive or discharge passengers.

(c) ON THROUGH AND LOCAL TRAINS, SINGLE TRACK. When running, all vestibule doors and platforms are to be kept closed.

(d) ON SUBURBAN TRAINS, DOUBLE TRACK, RIGHT-HAND OPERATION. Vestibule doors and platforms on right hand side of train may be kept open. Those on left hand side are to be kept closed, except when necessary to open them to receive or discharge passengers.

(e) ON SUBURBAN TRAINS, DOUBLE TRACK, LEFT-HAND OPERATION. Vesti-

bule doors and platforms on left hand side of train may be kept open. Those on right hand side are to be kept closed, except when necessary to open them to receive or discharge passengers.

(f) ON SUBURBAN TRAINS, SINGLE TRACK. All vestibule doors and platforms may be kept open.

NOTE — Through and local trains, when within commutation limits and carrying commutation traffic within such limits, will be regarded as suburban trains, and vestibule doors and platforms will be handled as provided for suburban trains in clauses (d), (e) and (f).

(g) SECURE VESTIBULE DOORS AND PLATFORMS. When permissible to have vestibule doors and platforms open when running, these must be securely fastened.

(h) GUARD RAILS OR SIDE GATES. These appliances will be handled as prescribed for the handling of vestibule doors and platforms.

(i) VESTIBULE CURTAINS. These appliances will be kept drawn and securely fastened, except during switching operations.

(j) TAIL GATES, CHAINS OR BARS. The appliance at the rear of the last car on the train must invariably be kept closed, and securely fastened, and the appliance at the rear of the last passenger car must also be kept closed and securely fastened when a baggage car, flanger or caboose is immediately behind it.

(k) When vestibule doors and platforms, side gates or guard rails (if required by these regulations to be kept closed when running) are closed

as the train moves away from stopping point and remain closed until nearing the next stopping point, or when trainman is on duty at the opening, it will be considered that the regulations are being complied with.

(l) On Passenger and Mixed Trains when the car immediately ahead of the first passenger carrying car is of the non-diaphragm type, the tail gate, chain or crossbar at the forward end of the passenger carrying car should be kept in closed position while the train is in motion.

## 10. TIME SERVICE REGULATIONS

(a) Time signals, indicating correct Standard Time, are transmitted daily from 11.54 A.M. through to 11.56 A.M. Eastern Standard Time.

(b) A reliable Railway Grade watch that has been approved for service by the proper authority and for which a card has been issued must be carried and used by Superintendents, Assistant Superintendents, Trainmasters, Division Master Mechanics, Division Engineers, Assistant Division Engineers, Road Foremen of Engines, Travelling Firemen, Locomotive Foremen, Assistant Locomotive Foremen, Outside Holstlers, Roadmasters, Assistant Roadmasters, Snow Plow Foremen, B&B Masters, Signal Supervisors, Assistant Signal Supervisors, Signal Maintainers, Signal Foremen, Conductors, Trainmen, Train Baggagemen, Enginemen, Firemen, Yardmasters, Yard Foremen (also Yardmen and Switch Tenders after six months service) and such other employees as the company may direct.

(c) Names and locations of Watch Inspectors may be obtained from Division Officers and those desiring watch information should be directed to the local Watch Inspector.

(d) Watch movements and cases used in service must be equal to, or of a higher grade, than the approved standard in effect at date of entry and hereafter watches entering service must be of the antimagnetic type.

(e) Employees will report to the Watch Inspector shown on their watch card and must

not change Watch Inspectors, except as follows, when Form TS 21 must be issued:

1. When transferred from one Division to another.

2. When it is not possible to report to their own Watch Inspector.

3. By permission of their Division Officer when the employee's watch card will be examined by the officer concerned.

(f) Watch Cards and corresponding watches are subject to inspection by Company Officers on request and must be submitted to the Watch Inspector for comparison and record in accordance with requirements of the Uniform Code of Operating Rules, or more often if required and also when the watch has been reset by the employee.

(g) When Railway Grade watches are purchased from Company Watch Inspectors any balance of the purchase price may be paid by payroll deductions.

(h) Watches must be cleaned within eighteen months of purchase or from the last cleaning date and regularly thereafter within eighteen months.

(j) When a Railway Grade watch is left with a Watch Inspector a loan watch will be provided free of charge. If the loaned watch is held by the employee for a period in excess of fifteen days without permission of the Watch Inspector, a rental charge may be made.

(k) A description of a loan watch will be recorded on the back of the employee's Watch Card.

(l) If no loan watch is available the Inspector will provide the employee with authority to use his own watch until a loan watch is available.

(m) When a Railway Grade watch is serviced by or purchased from other than a Company Watch Inspector, the employee must obtain a dated receipt on billhead or other stationery showing the name and address of the company or watchmaker, on which will be shown the make and serial number of the watch purchased or serviced with date on which the watch was cleaned or new. This receipt, or copy and the corresponding watch must be submitted to the employee's Watch Inspector for approval before the watch is used in service.

(n) Certain watches may become magnetized when close to rotating electric motors, generators, dynamos, heavy electric cable, also if close to steel plates and rails which may have been loaded by magnet. When necessary for an employee carrying a Railway Grade watch to closely approach such equipment or material precaution should be taken to avoid the watch becoming magnetized.

(o) The aim and purpose of using approved watches is to ensure efficiency and safety. Correct time is of the utmost importance where the movement of trains is involved. The closest co-operation of all concerned is, therefore, important.

## 11. HANDLING OF LIVESTOCK

(a) When a train consists of dead freight and livestock, the cars containing livestock are to be placed together and handled at the headend of the train when practicable.

(b) Method of handling livestock and the condition of cars furnished for the transportation thereof is important. Packing companies, livestock associations, railway companies and stockyards are making every effort to convey livestock from shipper to packing house with a minimum of damage and loss due to bruising of livestock in transit.

(c) It is important that all employees be fully aware of the necessity of carefully inspecting equipment and that defects such as loose or protruding nails, bolts, broken slats, damaged floors, etc., be corrected before cars are supplied or placed for loading.

(d) Care must be exercised to ensure rough couplings are not made when handling cars containing livestock.

(e) Defective or non-standard gang planks or toe boards which do not fit closely into car doors should not be used. All such appliances should be inspected at frequent intervals and repairs effected at once.

(f) Bruising may be caused by the use of rods, sticks, canes or whips in loading and unloading animals; this practice must not be indulged in by employees, who should also endeavour to prevent others from so doing. Extreme care should be exercised in keeping platforms and unloading docks, etc., in good condition; when

wet or icy, they should be properly cleaned and sand or cinders sprinkled on such spots as well as in alleys where the cattle are required to make a sharp turn in order to get into the pen. If any injury does occur from any cause, it should be promptly reported to the Superintendent.

(g) When spraying of hogs is performed, as requested by shippers or consignees, a steady stream of water is not to be directed on the animals but it is to be sprayed against the ceiling of cars and allowed to drip on the animals.

(h) Exchange of animals at stockyards is not permissible. Employees observing or being informed of such exchanges must promptly report all available information to the railway representative in charge of yards.

(i) The attention of all concerned is called to the provisions of the Criminal Code in reference to the feeding, watering and resting of livestock in transit:

Sec. 2 (5) 'cattle' means neat cattle or an animal of the bovine species by whatever technical or familiar name it is known, and includes a horse, mule, ass, pig, sheep or goat.

Sec. 389 (1) Except as provided in this section, no railway company or owner or master of a vessel shall confine cattle in a railway car or vessel in which they are conveyed in Canada or between Canada and the United States for more than thirty-six hours without unloading the cattle for rest, water and feeding for a period of at least five consecutive hours.

(2) No offence is committed under subsection (1) where compliance with that subsection is

prevented by storm or by necessary delay or detention or by other unavoidable cause.

(3) No railway company or owner or master of a vessel shall convey in a railway car or vessel calves that are under age of three weeks except calves at foot of milch cows or pure-bred calves.

(4) For the purposes of subsection (1) the period of confinement of cattle includes the time during which the cattle have been confined without rest, food or water on a connecting railway or vessel from which the cattle are received, whether in the United States or in Canada.

(5) This section does not apply in respect of cattle that are carried in a car or vessel in which they have proper space and opportunity for rest and in which they are provided with proper food and water.

(6) The owner of cattle to which this section applies or the person who has custody of them shall properly feed and water them during the periods of rest required by this section, but if he does not do so, the railway company or the owner or master of the vessel that carries them shall properly feed and water them at the expense of the owner or of the person who has custody of them, and the railway company or owner or master of the vessel, as the case may be, has a lien in respect thereof upon the cattle and is not liable for any detention of the cattle.

(7) When cattle are unloaded from cars for rest, food and water as required by this section, the railway company that has, at that time, charge of the cars in which the cattle have been carried, shall, except during a period of frost,

clean the floors of the cars and litter them with clean sawdust or sand before they are again loaded with livestock.

(8) No railway company shall permit a railway car or other vehicle that carries cattle or other domestic animals or birds on the railway to be overcrowded so that unnecessary suffering is caused to the cattle or other domestic animals or birds therein.

(9) No railway company shall permit a bull of mature age to be carried on its railway in the same railway car with cattle unless the bull is securely tied by the head.

(10) Every one who knowingly and wilfully violates or wilfully fails to comply with this section is guilty of an offence punishable on summary conviction.

Sec. 390 (1) A peace officer who believes on reasonable and probable grounds that a person has failed to comply with Section 389 in respect of a vehicle or vessel may at any time enter the vehicle or go on board the vessel.

(2) Every one who refuses to admit a peace officer acting under Sub-section (1) to a vehicle or vessel or to any premises where the vehicle or vessel is located is guilty of an offence punishable on summary conviction.

(j) In the case of all livestock shipments originating at or destined to any point on the Canadian Pacific Railway, or passing over any of its lines, the date and hour at which said livestock was loaded must be clearly shown on the waybill and where livestock has been rested, fed and watered in transit, the date, hour and place

at which it was last rested, fed and watered must also be shown on the waybill.

(k) Employees should see that stock is not confined in any car longer than the periods prescribed, and should see that cars are placed so that the owner can unload, feed and water, and, (if the owner refuses or neglects to unload, feed and water), should see that the stock is unloaded, rested, fed and watered.

(l) When transfer record for livestock delivered to this Company a connecting line indicates that there is not sufficient time to move the shipment to destination or to a feeding, watering and resting yard within the time prescribed by law, agents at junction points will refuse to accept the stock until it has been rested, watered and fed.

(m) All concerned must see that the law is strictly observed and no livestock carried past a feeding station unless there is time to reach the next feeding station within the legal limit.

(n) United States laws, violations of which provide for heavy penalties, prohibit the confining of livestock in cars for over TWENTY-EIGHT HOURS, unless prevented by storm or other accidental or unavoidable causes which cannot be anticipated or avoided by the exercise of due diligence and foresight, except when the THIRTY-SIX hour release (C.P.R. Form 1090) is signed by the owner or person in charge of that particular shipment, and notation made on the waybill accordingly in the place provided for this purpose on the front of the waybill, in which event, the time of confinement may be extended to THIRTY-SIX HOURS.

## 12. TANK CARS

(a) Tank cars containing liquefied petroleum gases such as methane, ethane, propane, butane and mixtures thereof; casinghead gasoline, refinery gasoline, naphtha or any inflammable liquid with flash point below 80°F, while connected by loading or unloading connections must have signs placed on the track or car so as to give warning. The party loading or unloading the tank car is responsible for furnishing, maintaining, and placing these signs, and the same party alone has authority to remove them. Tank cars thus protected must not be coupled to or moved. Other cars must not be placed on the same track so as to intercept the view of these signs, without first notifying the party who placed the signs. Before these signs are removed, even temporarily, the party authorized to remove them must securely close the outlet valve of the tank car. The outlet valve must not be opened until the tank car is properly protected by signs. Such signs must be at least 12 x 15 inches in size and bear the word "STOP-Tank Car Connected" or "STOP-Men at Work", and the word "STOP" being in letters at least four inches high and the other words in letters at least two inches high. The letters must be white on a blue background.

(b) While such tank cars are being unloaded the brakes shall be applied and the wheels at both ends shall be blocked on the rails.

(c) Except in cases where wire-guard-protected vapour-proof-type electric lights, or vapour-proof electric flash lights are provided, the loading or unloading of tank cars shall not be permitted

excepting during daylight hours. Open flame lanterns, or other exposed flame lights or fires must not be used or permitted during loading or unloading operations. Flood lighting at safe distance is permitted.

(d) Hopper doors, dampers and fire box doors on steam locomotives shall be closed as follows:

— On switching locomotives when passing tank cars protected by "STOP" signs.

— On all locomotives when stopping opposite tank cars protected by "STOP" signs.

— On all locomotives, when coupling to a tank car at loading or unloading point.

## 13. GENERAL INSTRUCTIONS RE HANDLING CARS OF EXPLOSIVES, POISON GAS, CLASS 'D' POISON AND PLACARDED TRUCKS OR TRAILERS ON CARS OR PLACARDED TANK CARS IN TRAINS

(Reference to cars in instructions below apply also to cars carrying placarded trucks or trailers)

(a) Such cars must have air and hand-brakes in service and must not be handled in a train which carries passengers, except on lines where there are no regular trains operating in freight service only. Train and engine crews must be advised in writing of the presence and location in the trains of cars placarded EXPLOSIVES. This notice must be transferred from crew to crew at points other than terminals.

(b) No car moving under its 'own' momentum shall be allowed to strike any car placarded EXPLOSIVES or POISON GAS, nor shall such car be coupled to with more force than is necessary to complete the coupling.

(c) Cars placarded EXPLOSIVES, POISON GAS, CLASS 'D' POISON must not be cut off while in motion.

(d) In switching operations, cars placarded EXPLOSIVES must be separated from the engine by at least one non-placarded car.

(e) Closed cars placarded EXPLOSIVES shall have doors closed before they are moved.

(f) PLACARDED LOADED TANK CARS or a draft including such cars must not be cut off in switching operations until the preceding

car or cars have cleared the lead track and cars must not be allowed to follow PLACARDED LOADED TANK CARS until they in turn are clear of the lead. When PLACARDED LOADED TANK CARS are controlled by HAND BRAKES, the brakes must be tested and determined to be in good working order before cars are cut off.

(g) Cars placarded EXPLOSIVES should be so placed in yards or on sidings that they will be safe from all probable danger of fire and provision made for quick REMOVAL and ISOLATION in case of fire. Such cars must not be placed under bridges or overhead highway crossings, nor in or alongside of passenger sheds or stations except for loading or unloading purposes. Engines on parallel track must not stand opposite or near them.

(h) Cars placarded DANGEROUS or known to contain flammable liquids, gases or vapours must not be entered with a lighted open-flame lantern, torch or other fire until both car doors have been opened and sufficient time allowed for ventilation and escape of any vapours.

(i) PLACARDED CARS which have been on fire due to hot journals or any other cause shall not be transported, except to the extent necessary to facilitate fire fighting, until it has been determined that there is no fire remaining with the car.

(j) A car requiring EXPLOSIVES or POISON GAS placards, or both, when accompanied by cars carrying guards or gas handling crews, shall be next to and ahead of the car occupied by the guards or gas handling crews accompanying such

car; except that when the car occupied by guards or gas handling crews is equipped with a lighted heater or stove, it shall be the fourth car behind a car or cars requiring EXPLOSIVES placards.

EXPLOSIVES:—

(k) When length of freight or mixed train permits, cars placarded EXPLOSIVES must be placed not nearer than the SIXTEENTH car from both the engine or occupied caboose. When length of freight or mixed train will not permit to be so placed, they shall be near MIDDLE of train, except that when moving in a freight or mixed train performing pick-up and/or set off service, it shall be placed not nearer than the SECOND car from both the engine or occupied caboose, and in freight or mixed trains made up in "blocks" or classifications, it shall be placed near the middle of the "block" or classification in which moving, but not nearer than the SIXTH car from both the engine or occupied caboose.

(l) Cars placarded EXPLOSIVES must not not be handled next to cars placarded DANGEROUS, POISON GAS or CLASS 'D' POISON; engine, wooden underframe car; loaded flat car, except that flat cars carrying trailers or containers placarded EXPLOSIVES, as authorized by the regulations, may be coupled to each other; open top car when lading extends or protrudes above or beyond the ends or sides thereof; cars equipped with automatic refrigeration of the gas-burning type; cars containing lighted heaters, stoves or lanterns; cars loaded with live animals or fowl occupied by an attendant;

occupied caboose, passenger or combination car other than when occupied by gas handlers or military personnel accompanying shipments.

LOADED PLACARDED TANK CARS:—

(m) When length of freight or mixed train permits, loaded placarded tank cars must be SIX cars from engine, occupied caboose or passenger car, but in no case nearer than the SECOND car from engine, occupied caboose or passenger car, unless the remainder of the train consists of loaded placarded tank cars.

(n) Loaded placarded tank cars must not be handled next to cars placarded EXPLOSIVES; engine or occupied caboose (except when train consists only of loaded placarded tank cars); cars placarded POISON GAS; wooden underframe cars; loaded flat cars; open top cars when lading extends or protrudes above or beyond the ends or sides thereof; cars equipped with automatic refrigeration of the gas-burning type; cars containing lighted heaters, stoves or lanters; cars loaded with live animals or fowl, occupied by an attendant; occupied caboose, passenger or combination car other than when occupied by gas handlers or military personnel accompanying shipments.

NOTE: For any special handling of explosives and other dangerous articles, other than outlined above, apply to Supervisory Officer, who can refer to Board of Transport Commissioners' Regulations.

Conductors, Agents and Yardmasters should also refer to instructions on reverse side of Form 470 — "Explosive Freight Waybill".

## 14. RADIOACTIVE MATERIALS

RADIOACTIVE MATERIALS (CLASS 'D' POISON) ARE LABELLED "RADIOACTIVE MATERIAL" AND PLACARDED "DANGEROUS — RADIOACTIVE MATERIAL"

(a) Cars containing RADIOACTIVE MATERIAL and placarded DANGEROUS-RADIOACTIVE MATERIAL must not be placed in train next to cars placarded EXPLOSIVES or next to carload shipments of undeveloped film.

(b) In the event of breakage of container, accident, fire or unusual delay involving a shipment of RADIOACTIVE MATERIAL labelled RADIOACTIVE MATERIAL or placarded DANGEROUS — RADIOACTIVE MATERIAL, the car and any loose RADIOACTIVE MATERIAL must be isolated from human contact and no persons must be allowed to remain near car or contents needlessly, until qualified persons are available to supervise handling.

(c) The Board of Transport Commissioners, shipper and the Bureau of Explosives must be notified immediately.

(d) Cars, buildings, areas, or equipment in which CLASS 'D' POISON (Radioactive Materials) have been spilled must not be placed in service or occupied until decontaminated by qualified persons.

(e) The amount of radiation from a substance cannot be determined either by its appearance or by its volume, and must be determined by instruments or measuring device.

(f) To transport these hazardous materials necessitates packing them in containers of such design that the radiation escaping from the package is reduced to safe limits so as to enable personnel to handle the packages without danger to themselves.

(g) For the more active materials, which are, of course, the more hazardous, lead shielding is used and the thickness of the lead is proportionate to the activity of the substance. In like manner the value of radioactive materials results in their being extremely well packed to prevent possibility of loss. This reduces the possibility of materials being spilled, even under adverse conditions, and the instructions below are for the purpose of providing some protection in case of serious accident resulting in actual spilling of the material.

## GENERAL PROCEDURE

(h) Until proper determinations can be made, keep all persons at least fifty feet away. The greatest practicable distance should be maintained under any condition. Trains or vehicles may be allowed to pass at less than fifty feet if they can do so without stopping in the suspected area. PERSONS NOT PROPERLY PROTECTED AGAINST RADIATION SHALL NOT BE PERMITTED TO APPROACH THE VICINITY OF ANY PLACE WHERE RADIOACTIVE MATERIAL IS CONSIDERED LIABLE TO HAVE BEEN SPILLED. If material is involved in fire, avoid breathing smoke or fumes. Radioactive material must not be disposed of by submersion or dumping in any body of water, swamp, or marsh.

(i) If there is evidence of any damage to shipping container, determine as soon as possible whether material has been actually exposed or spilled or the outside container is broken open, and if so proceed as follows:

(1) For small containers, i.e., radioactive materials in fibreboard or wooden boxes or steel or fibre drums and weighing less than 200 pounds:—

(a) Keep all persons 10 feet away.

(b) If for any reason it is impracticable to keep persons away, sandbag or cover the spilled radioactive material with at least 4 inches of earth or sand, using a longhandled shovel and remaining close to the material only so long as it is necessary to accomplish the work.

(c) When help is available, have the qualified person arrange for removal of the material and make a check for possible contamination.

(2) For large or heavy containers (200 pounds or more), if there is any evidence that the container has been broken open, observe rules in first paragraph under "GENERAL PROCEDURE" until help arrives.

(3) For ores and residues of low radioactivity:—

Prevent persons from breathing dust.

Prevent direct contact for prolonged periods.

Prevent spreading of spilled material and keep it out of streams, reservoirs, etc.

Obtain assistance of qualified personnel and remove spilled material.

(j) Every care should be taken to avoid actual contact with a radioactive substance. If radioactive material is spilled upon the clothing of an individual, the contaminated clothing should be removed at once and isolated in the same manner as above.

(k) In case of accident to radioactive material involving damage or destruction of the containers by fire, the use of water should be avoided when possible and chemical extinguishers used when available. Fire does not destroy radioactive material although it may change the appearance of the substance. The same precautions should be taken therefore in dealing with substances that may have been involved in fire.

(l) There should be no danger to human beings travelling on trains moving past radioactive material on or adjacent to the right-of-way that has been isolated as outlined in the preceding paragraphs.

NOTE:—For other special handling of RADIOACTIVE MATERIAL (CLASS 'D' POISONS) apply to Supervisory Officer.

## 15. HANDLING OF AUTOMOBILES OR OTHER SELF-PROPELLED VEHICLES IN CARS OR ON THE PREMISES OF THE COMPANY

(a) Automobiles, trucks, motocycles, tractors, internal combustion engines, etc., for the operation of various mechanical appliances, etc., (except boats, canoes and launches, which must have oil and gasoline tanks empty in accordance with Canadian Freight Classification No. 20 and Supplements), must have oil and gasoline tanks in good condition and securely closed prior to delivery on Company's premises. All plugs and covers must be closed in such a manner as to prevent any danger of fire and shippers must certify in bills of lading that tanks are not leaking and in good condition. Such machines will then be accepted for shipment without gasoline being drained from tanks. If a leak is found shipment must be refused.

(b) Only where special loading or unloading platforms have been erected will automobiles, trucks, etc., be permitted to move from the ground to the platform, or from the platform to the ground under their own power. All such vehicles must be loaded from the platform into the cars and unloaded from the cars to the platform by hand; power must not be used. In freight sheds and on attached platforms, or platforms where merchandise is handled, automobiles, trucks, etc., may be moved from the ground to the warehouse or platform, or from the freight shed and platform to the ground (when facilities are adequate) under their own

power when authorized by railway representative in charge, providing gasoline and oil tanks are in good condition, securely closed and free from leaking either gasoline or oil.

(c) Under no circumstances must the fuel tank of these vehicles be filled or drained while on drained while on railway platforms (this does not include manufacturers' special platforms or railway platform assigned for exclusive handling of automobiles) in cars or railway buildings, or on railway premises within fifty feet of any such railway building.

(d) Cap to gasoline storage tank must be tightly closed and there must be no leakage of gasoline at any point.

(e) Lanterns or any other open flame lights must not be used during the movement of such vehicles to or from cars; when light is necessary electric flash lights or incandescent electric lights must be used.

(f) Smoking or using lighted matches in cars or warehouses containing automobiles is prohibited.

(g) To avoid freezing, water tanks should be emptied during the season from September 1st to May 1st

(h) In the event of a shipment of automobiles or trucks being refused by the consignee, every possible effort should be made to secure immediate disposition. If the property remains on hand an unusual length of time and it is desired to release the equipment, authority must be obtained from the Freight Claims Agent before

placing in storage, and if such authority is given the machines must not be handled under their own power. Where it becomes necessary to handle through the street to the point of storage, they must be handled either by an independent truck or team and any expense connected therewith charged against the property, which amount can be cleared when the shipment is delivered or returned to the consignor.

## 16. CONNIVANCE IN ILLEGAL TRANSPORTATION BY RAILWAY EMPLOYEES

### SECTION 344 OF THE CRIMINAL CODE READS

"(1) Every one who, by means of a false or misleading representation, knowingly obtains or attempts to obtain the carriage of anything by any person into a country, province, district or other place, whether or not within Canada, where the importation or transportion of it is, in the circumstances of the case, unlawful is guilty of an offence punishable on summary conviction.

(2) Where a person is convicted of an offence under subsection (1), anything by means of or in relation to which the offence was committed, upon such conviction, in addition to any punishment that is imposed, is forfeited to Her Majesty and shall be disposed of as the Court may direct."

Your attention is also directed to Section 180 of the Customs Act of Canada, reading as follows:—

"180. (1) If any goods are unlawfully imported on any railway, they shall be seized and forfeited, and the car in which such goods were so imported shall be seized and detached from the train and forfeited.

(2) Every conductor, baggage-master, or officer or servant employed on any railway and every officer or servant employed by any express company, who is privy to or aids or abets in such

unlawful importation, shall forfeit a sum equal to the value of the articles, and

(a) if the value for duty of the goods is under two hundred dollars, is further liable on summary conviction before two justices of the peace to a penalty not exceeding two hundred dollars and not less than fifty dollars, or to imprisonment for a term not exceeding one year and not less than one moth, or to both fine and imprisonment; and

(b) if the value for duty of the goods is two hundred dollars or over, is guilty of an indictable offence and liable on conviction to a penalty not exceeding one thousand dollars and not less than two hundred dollars, or to imprisonment for a term not exceeding four years and not less than one year, or to both fine and imprisonment."

This is submitted for your information and guidance and you will note that the consent, connivance, aid or assistance of any railway employee in illegal transportation constitutes an offence for which a prison term is a penalty, in addition to carrying penalties by way of seizure and forfeiture. All employees will use their best efforts to prevent violation of the law and every facility should be given to officers of the Government in their investigations.

If an agent, yardmaster or conductor (and particularly the latter in connection with cars loaded at flag stations and outlying sidings) has reason to believe that a shipment is falsely billed and contains contraband, although classified as some other commodity, he will immediately inform his Superintendent by telegraph, giving full particulars, including car number.

## 17. PREVENTION AND EXTINGUISHING OF FIRES ON OR IN THE VICINITY OF RIGHT-OF-WAY

TO ALL EMPLOYEES GENERALLY:—

(a) It will be the duty of all officers and employees generally to take precaution to prevent fires on or along the Roadway of the Company; to promptly extinguish and prevent spread of fires outside the right-of-way and to investigate and report fires and probable cause thereof.

(b) TO ALL CONDUCTORS, ENGINEMEN, TRAINMEN, AND OTHER EMPLOYEES CONCERNED: — Conductors, Enginemen, or Trainmen who discover or receive notice of the existence and location of a fire burning upon or near the right-of-way, or of a fire which threatens land adjacent to the right-of-way, shall report the same by wire to the Superintendent, and shall also report it to the Agent or persons in charge at the next point at which there shall be communication by telegragh or telephone, and to the first section employees passed. Notice to track forces of such fire shall also be given immediately by engine whistle signal 14 (r) U.C.O.R.

(c) No employee shall do or cause damage or injury to any of the fire-protective appliances on any engine.

(d) Fire, live coals, or hot ashes shall not be deposited on the tracks, right-of-way or elsewhere unless extinguished immediately thereafter, except in pits provided for the purpose.

On no account shall ashpans be dumped, or ashes from cars or cabooses be thrown out while running. Burning or smouldering waste taken from hot boxes shall be completely extinguished. Freight and passenger cars in which there are lighted stoves must not be left spotted adjacent to grain elevators, oil warehouses, loaded tank cars or those containing explosives or other dangerous commodities.

(e) TO ALL AGENTS, DISPATCHERS AND OPERATORS: Conductors, Enginemen and Trainmen have received instructions to report all fires occurring on or adjacent to the right-of-way, and it shall be your duty, on receiving such report, to notify immediately the Superintendent and Roadmaster by wire, also the Section Foreman and local Fire Inspector of the Board of Transport Commissioners in terriotory where such Fire Inspectors are located, giving the exact location, by mileage, of the fire, its extent, and any other information which may be of value, particularly as to the number of men needed to fight same.

(f) TO SECTION FOREMEN, EXTRA GANG FOREMEN, BRIDGE FOREMEN, TELEGRAPH OR OTHER CONSTRUCTION GANGS, AND OTHER TRACK EMPLOYEES: In all cases where fire occurs, on or in the vicinity of the right-of-way, it shall be your duty to proceed immediately to such fire and extinguish same, remaining as long as may be necessary to do this. The carrying on of your work, though it may be important, must be set aside until the fire is completely extinguished, provided, however that you are not at the time

engaged in labours immediately necessary to the safety of trains. In case the fire cannot be extinguished as above, additional help shall be immediately requested by telegraph or telephone message to the Superintendent or Roadmaster. The Section Foreman on whose section the fire occurs, shall in the absence of an officer of the Company, make a thorough investigation regarding the origin of the fire and submit a full report to the Roadmaster.

(g) Between April 1st and October 31st, no ties, cutting debris, or litter upon or near the right-of-way shall be burned except under such supervision as will prevent fire from spreading beyond the strip being cleared. Any officer of the Board of Transport Commissioners may, at any time, require that no such burning be done along specified portions of the line, except with the written permission or under the direction of such officer.

(h) TO SUPERINTENDENTS, ROADMASTERS AND OTHER OFFICERS CONCERNED:—If the fire is of such an extent that the section gang, or other local force available, cannot control it unaided the Superintendent, or in his absence, his representative, must immediately arrange for the dispatch of the Roadmaster or other competent officer with the necessary additional men who can be drawn from those available in any department, and all necessary fire-fighting appliances to the scene of the fire, and must so arrange the train service that they will get to the fire with the least possible delay in order that no time may be lost in getting it under control.

(i) The officer in charge must also arrange to obtain promptly complete statements from all witnesses, so that origin or any responsibility for the fire can be accurately determined.

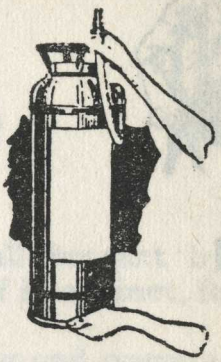
PENALTY —

General Order of the Board of Transport Commissioners, No. 548, dated December 4th, 1935, provides as follows: "If any employee or other person included in the said regulations fails or neglects to obey the same, or any of them, he shall, in addition to any other liability which he may have incurred, be subject to a penalty of twenty-five dollars for every such offence."

## 18. INSTRUCTIONS IN THE USE OF FIRE EXTINGUISHERS AND PROCEDURE TO FOLLOW IN CASE OF FIRE

**Soda-Acid Extinguisher**

1



2

3

4

1. Grasp hose first, holding it between thumb and index finger of right hand.
2. Fingers of right hand grasp the ring top and left hand grasps bottom. Lift extinguisher off hanger and carry to fire, taking care to keep it upright.
3. Arriving at fire, invert extinguisher by grasping bottom handle with left hand, releasing fingers of right hand from ring top, but holding hose and pointing nozzle towards fire.
4. Direct stream at base of flames. Follow flames with stream.
5. DO NOT USE ON ELECTRICAL EQUIPMENT.

## Foam Extinguisher

1

2

3

4

1. Grasp hose first, holding it between thumb and index finger of right hand.
2. Fingers of right hand grasp the ring top and left hand grasps the bottom. Lift extinguisher off hanger and carry to fire, taking care to keep it upright.
3. Arriving at fire, invert extinguisher by grasping bottom handle with left hand, releasing fingers of right hand from ring top, but holding hose and pointing nozzle towards fire.
4. If fire is in a container or tank direct stream against inside opposite wall above level of burning liquid, working around fire if possible. If fire is on floor stand back and allow foam to fall on flames without much force.
5. DO NOT USE ON ELECTRICAL EQUIPMENT.

## Carbon Tetrachloride Extinguisher
## ("CTC" Extinguisher)

1

2

3

1. Remove extinguisher from wall bracket by grasping handle and pulling outward. If in cabinet, follow same procedure after breaking glass.
2. Unlock pump handle by turning and operate pump.
3. Direct stream at base of flames and work around fire rapidly. If fire is in a container or tank direct stream against inside opposite wall above level of burning liquid.
4. May be used on Electrical Equipment.

## Carbon Dioxide Extinguisher
## ("$CO^2$" Extinguisher)

1

2

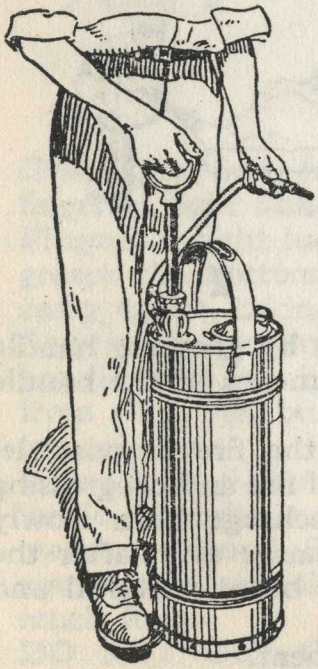
1. Remove extinguisher from bracket by grasping handle with left hand. Carry to fire by means of the handle and open valve to release gas.
2. Direct the discharge as close to the fire as possible, applying first at edge and bottom of fire and progressing forward and upward, moving discharge horn slowly from side to side. Continue discharge even after the fire has been extinguished to cool burnt material and prevent possible reflash.
3. May be used on Electrical Equipment.

## Dry Chemical Extinguisher
## (Dry Powder Extinguisher)

1

2

1. Remove extinguisher from bracket by grasping handle with left hand. Carry to fire by means of the handle and operate mechanism which releases gas pressure.
2. Direct discharge with a fast sweeping motion at base of flame.
3. May be used on Electrical Equipment.



### Pump Tank Extinguisher

1. Place foot on the foot rest at bottom of tank.
2. Pump stroke need not be more than six or eight inches in length.
3. Direct stream at base of flames.
4. Follow flames and work around fire if possible.
5. DO NOT USE ON ELECTRICAL EQUIPMENT.