

Provincial Railway Guides

Extreme Weather and Fire Prevention Plan Guideline – PRG 2009

Provincially regulated railways are required to develop and maintain a plan to ensure safe railway operations. Extreme Weather and Fire Prevention Plans are necessary to ensure that a railway has measures in place to maintain safe operations during extreme heat and fire hazard conditions. This guide is intended to set out the minimum requirements for plans governing operation of provincial railways in extreme heat.

Introduction

Section 33 of *The Railway Act* requires the railway owner, operator or the railway owner and operator to take measures to prevent fire and the spread of fire.

Application

This guideline is applicable to all railways with common carrier obligations (shortlines). The ministry reserves the right to request fire plans from industrial railways on a case-by-case basis.

Definitions

The following definitions apply in this guideline.

Fire Hazard

- Fuel or combustible material, including vegetation, that is found along a line work and that has a fast-burning rate and could readily ignite, and
- Conditions, including topography, that are present along a line work and that increase the likelihood of a fire igniting on the line work or spreading from the line work into the surrounding environment.

Extreme Fire Hazard

- When the temperature exceeds 30° Celsius and the local territory has been identified as high, very high or extreme fire risk

High-Risk Work

- Work that involves the use of any equipment that generates sparks or flames or the controlled burning of brush.

Fire Danger Level

- The fire danger level for an area is the fire danger level shown for the area on the interactive map that is part of the Canadian Wildland Fire Information System and is published on the Department of Natural Resources website or from the Saskatchewan Ministry of the Environment's Daily Municipal Fire Ban Map. If more than one fire danger level is shown for the area on the map where current railway operations are being conducted, the fire danger level for the area is the highest indicated level.

Fire Response and Control

Fire On Railway Line

When a railway company becomes aware of a fire on a line, the railway company must ensure that steps are taken to extinguish or control the fire as soon as practicable. The steps must include:

- The immediate notification of the fire service that is responsible for the area where the fire is located if the fire cannot be extinguished or controlled without fire service assistance.
- The notification, if applicable, of the railway company that operates or owns and maintains the railway.

Assistance To Fire Service

If a fire service is attempting to extinguish or control a fire on a railway line, a railway company must, at the request of the fire service and without delay, provide the fire service with reasonable assistance. The assistance may, depending on the circumstances, include the provision of transportation to the fire.

Extreme Weather and Fire Prevention Plan Contents

A railway company must have an Extreme Weather and Fire Prevention Plan and must update it every five years.

The railway Extreme Weather and Fire Prevention Plan must be provided to any municipal government and fire department whose jurisdiction the railway owns track or operates within.

Content of Plan

The plan should generally include and set out:

- Process to collect and incorporate input from local fire departments along with a defined procedure for contacting and assisting emergency services.
- Procedures and mitigating measures for conducting high-risk work.
- A description of the methods used for fire detection.
- Description of any fire mitigation measure to be undertaken during moderate to high fire conditions to prevent and control fires.

- Description of locomotive inspection and maintenance practices during periods of extreme fire hazard.
- Description of vegetation control, identification of combustible material removal practices.

Contact Information for Fire Services and Collection of Input

A railway company must keep, in a readily accessible location, up-to-date contact information that sets out the name and telephone number of the fire service that is responsible for each area where a railway company owns and/or operates a railway line.

The railway must communicate its fire prevention plan along with the contact information for the fire services to employees who conduct railway operations.

Contact information for fire services must be maintained and records kept regarding of any information shared with fire services and feedback received regarding the railway's plan.

High-Risk Work

Notification Of Fire Service

When a railway conducts high-risk work in an area where there is an increased fire danger level of high to extreme, the railway company must notify the fire service that is responsible for the area at least 24 hours in advance but not more than 48 hours in advance.

If a fire danger level is not available for the area, the railway company must notify the fire service that is responsible for the area at least 24 hours in advance but not more than 48 hours in advance.

High-Risk Work Records

When a railway company notifies a fire service about planned high-risk work, the railway must keep a record of:

- The date and time of the notification and the way it was provided.
- The name of each person who was contacted at the fire service.
- Any recommendations that were given by the fire service and, if a recommendation was not followed, the reasons for not following it.

High-Risk Work Prevention Measures

A railway company that is conducting high-risk work in an area must take the fire prevention measures that are set out in the railway company's fire hazard reduction plan for the fire danger level for that area.

If a fire danger level is not available for the area, the railway company must take the fire prevention measures that are set out in the railway company's fire hazard reduction plan for at least a moderate fire danger level.

High-Risk Fire Suppression Equipment

A railway company that is conducting high-risk work must ensure that employees and contractors who are conducting the high-risk work are equipped with the fire suppression equipment that is set out in the railway company's fire prevention plan for the fire danger level for that area.

General Fire Risk Mitigation Measures

Mitigation measures are required to prevent and control fires in and along the rail rights-of-way. The plan should include sections and details describing fire risk mitigation measures that outline or establish:

- A description of the methods used for fire detection. This can include increased patrols, use of spotters or any other reliable measures for monitoring during extreme conditions.
- Description of equipment used to monitor for fires and extinguish small fires.
- Description of circumstances, weather conditions and fire hazard levels at which the railway will temporarily suspend train operations (if any).
- Description of any other special operational restrictions a railway has put in place for train operations during various fire hazard levels or weather thresholds. Examples could include train tonnage restrictions, speed restrictions or restricting operations to specific time of day.
- Description of any mitigation measures implement for special weather circumstances such as wind warnings issued in conjunction with moderate, high, or extreme fire risk levels.
- Process to collect and incorporate input from local fire departments along with a defined procedure for contacting and assisting emergency services.
- Description of vegetation control and identification of combustible material and removal practices. This includes stockpiles scrap ties and crossing planks along the railway's right-of-way.

Locomotive Inspection and Maintenance

During periods of medium to extreme high fire risks it is important that extra attention is allocated to locomotive maintenance and inspections. Particular attention should be allocated to exhaust stacks or spark arrestors. A properly functioning spark arrestor has a critical role to help prevent fires.

As a minimum, plans should include measures that increase routine maintenance and exhaust inspection intervals to once every 15 days, when locomotives are frequently in operation during periods of extreme fire hazard.

The plan should include measures that ensure infrequently used locomotives (locomotives used less than once every 15 days) receive an exhaust inspection prior to commencement of operation during periods of extreme fire hazard.

If a railway has developed more stringent inspection thresholds than the minimum expectation noted above, the railway's plan should outline the criteria and circumstances when increased inspection intervals are implemented.

In Turbocharged Engines (Locomotive should have one exhaust stack):

- Inspect for carbon build-up on the eductor tubes and exhaust stack (no arrester is required).
- On muffler equipped locomotives, you will have to remove or have the eductor removed for inspection.

Non-Turbocharged Engines (Locomotive can have up to four exhaust outlets and require a spark arrester on each outlet)

- Inspect for correct application of arrester.
- Arrester properly cleaned and maintained.
- Exhaust system in good order.

Exhaust Stacks

- Stacks contaminated with carbon and caramelized oil must be cleaned, minimizing the amount of residue with no more than three millimetres remaining.

Records

The railway company must keep documentation listed below, for at least five years after the day on which the document is created or updated:

- The railway company's Extreme Weather and Fire Prevention Plan and each updated version.
- Each updated version of the contact information for the fire services.
- A record of each date on which, together with the way, the railway company's fire plan was communicated to employees, municipal governments, and fire departments.
- Record of any feedback obtained from municipal governments or fire departments.
- A record indicating the date and type of maintenance conducted on locomotives.

Contact

For more information on this guideline or for assistance in resolving disputes related to a railway's Extreme Weather and Fire Prevention Plan, please contact:

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