



Hazard Alert

HAZARD SUMMARY

An Island farmer could have been seriously injured or killed when the boom of the self-propelled mobile sprayer he was operating came too close or contacted a 138,000 volt electrical power line. The farmer heard a loud noise and saw flames shoot out from the sprayer's tires. He avoided a possible fatality by staying inside the mobile sprayer and driving away from the electrical charge. Visible damage to the sprayer included scorch marks on the tires and extreme heat damage to the contact areas. The incident resulted in a province-wide power outage.



Hazard Location:

All power lines, with a specific focus on those that transmit 138,000 volts, from Richmond Cove to Bedeque and from the Bedeque Switching Station to Sherbrooke and West Royalty.

Cause:

The farmer raised the sprayer boom to clear trees and shrubs at the end of the potato field. While turning, the vehicle boom came within the minimum approach distance of 5.2M (17 ft) to the overhead power lines. At this point, the boom either contacted or came close enough to the line to cause an arc.



Legislated Requirements:

- The Occupational Health and Safety Act under Section 18 states that “an owner shall take every reasonable precaution to provide and maintain the owner’s land or premises used as a workplace (i) in a manner that ensures the occupational health and safety of persons at or near the workplace”.
- That “an owner shall give to the employer at the workplace the information that is (ii) necessary to identify and eliminate or control hazards to the occupational health and safety of persons at the workplace”.
- The PEI Farm Safety Code of Practice requires operators to maintain “minimum approach distances to overhead power lines ...”.

The Occupational Health and Safety Act Regulations have varying minimum approach distances depending on the voltages of the overhead power lines.

Nominal Phase to Phase Voltage of Live Power Line

Up to 750 volts

751-100,000 volts

100,001 – 250,000 volts

250,001 – 345,000 volts

Minimum Distance

900 mm (3 ft.)

3600 mm (12 ft.)

5200 mm (17 ft.)

6100 mm (20 ft.)

Recommended Precautions:

- 1) Safety clearances should be marked in all fields where overhead lines are present.
- 2) Bales of hay, straw or other flammable products should never be stored under power lines.
- 3) Stay in or on any vehicle or equipment that has made contact with a power line. If still operable try and move it clear of the line to a distance of at least 15M (50ft). Call Maritime Electric at 1-800-670-1012 if you have any questions..
- 4) Stay at least 15M (50ft.) away from a vehicle that has come in contact with a power line.
- 5) Provide all workers with electrical safety awareness training. Call Maritime Electric (1-800-670-1012) if you have questions.

