

National Energy Board



Office national de l'énergie

Guidance for Safe Crossings of NEB-Regulated Pipelines Using Agricultural Vehicles and Mobile Equipment

December 2010



When can I cross?



Can I cross with my machinery?



Where can I cross?

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FOREWORD:

The National Energy Board (the NEB or the Board) is responsible for the regulation of natural gas, oil and commodity pipelines that cross a provincial or international border; it does so through the National Energy Board Act and its Regulations. The Board is committed to ensuring the continued safe and reliable operation of Canada's pipeline infrastructure that falls under its jurisdiction.

The Board may develop or adopt guidance, standards and/or best practices to support and complement its Regulations. In the case of crossing NEB-regulated pipelines with agricultural vehicles and mobile equipment, the Board's intent is to provide additional information and guidance so that individuals involved in such crossing activities may better understand the expectations of the Board with respect to compliance with the regulatory requirements.

Guidance identifies a means or methods towards achieving regulatory compliance. These means or methods may be based on a number of criteria:

- The mandatory requirements of the Regulations.
- The experience of the Board in how compliance may be achieved.
- The adopted industry standards.
- Industry best practices.

It is important to note that guidance is not a statutory instrument, and the description of a means or methods in the guidance is not mandatory. The responsibility to ensure the safe crossing of pipelines by agricultural vehicles and mobile equipment ultimately rests with the pipeline operator who must comply with the Regulations and be able to demonstrate to the Board the ability to achieve compliance.

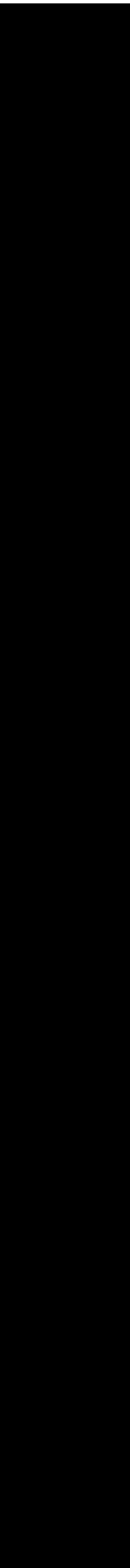


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INTRODUCTION

The *National Energy Board Act* (the Act) and its Regulations define the responsibilities of both pipeline operators¹ and landowners/users² with respect to promoting safety and the prevention of damage to NEB-regulated pipelines³. Under Section 112(2) of the Act, landowners/users are required to obtain agreement (leave⁴) from the pipeline operator prior to crossing a pipeline with agricultural vehicles and mobile equipment⁵.

This *Guidance for Safe Crossings of NEB-Regulated Pipelines Using Agricultural Vehicles and Mobile Equipment* (guidance) was developed by a multi-stakeholder group comprised of landowners, industry and Aboriginal representatives, industry and landowner associations, and the NEB. The purpose of this guidance is to provide a recommended approach to the crossing of a pipeline right-of-way⁶ by agricultural vehicles and mobile equipment, identifying where leave is required and where leave is typically not required.

This guidance is to be read with Board Exemption Order MO-21-2010 dated 22 December 2010, provided in Appendix A of this document.

1 The company responsible for operation, maintenance and management of the pipeline.

2 A person, engaged in agriculture, who raises livestock or grows crops. A land user may rent or lease the farmed land, or may work as a service provider or employee.

3 For the purposes of this document only pipeline means a buried line that is used or to be used for the transmission of oil, gas or any other commodity. A more detailed definition can be found in the Act.

4 Granting of permission or approval.

5 A vehicle or mobile equipment used to perform agricultural activities.

6 A pipeline right-of-way (ROW) is the strip of land in which the pipeline is located. The width of the right-of-way may vary depending on factors such as pipeline diameter and the slope of the land, but it typically ranges from 12-30 metres (approximately 40-100 feet) for the entire length of the pipeline.



FACTORS THAT COULD INFLUENCE **pipeline crossing safety**

Safe crossing of buried pipelines involves many factors. These factors are subject to a number of standards and government regulations developed on the basis of best available science, engineering practices, and experience.

The factors that affect pipeline safety can be complex and include, but are not limited to, the following:

- Type of activities being conducted,
- Type and size of equipment,
- Soil conditions,
- Frequency of the crossing activity,
- Pipeline system specifications and design,
- Pipeline operating conditions, and
- Pipeline depth of cover ⁷.

⁷ The depth of soil measured from the top of the pipeline to the ground surface.



GUIDANCE FOR SAFE CROSSINGS OF **NEB-Regulated Pipelines Using Agricultural Vehicles and Mobile Equipment**

Agricultural crossings - agreement (leave) NOT required

When all of the following conditions are met, the landowner/user is not required to notify and obtain agreement from the pipeline operator prior to conducting agricultural activities involving the crossing of a buried pipeline:

1. The agricultural activity does not disturb more than 30 centimetres (12 inches) of soil cover.
2. When in operating mode, the agricultural vehicle or mobile equipment is not removing or adding soil cover.
3. Soil conditions are such that they ensure minimal rutting when agricultural vehicles or mobile equipment are driven over the pipeline.
4. Loaded axle weight and tire pressures are within the manufacturer's approved limits and operating guidelines (except for the equipment listed in the next section).

IMPORTANT: If landowners/users are unsure if all of the above conditions will be met in relation to the proposed agricultural activity or are unsure if the proposed agricultural activity could jeopardize the safe and secure operation of the pipeline, they must contact the pipeline operator before crossing the pipeline with agricultural vehicles or mobile equipment.

Examples of acceptable agricultural activities include but are not limited to: plowing, fertilizing, disking, harrowing, cultivating, seeding, planting to a depth of less than 30 centimetres (12 inches), spraying, tilling, baling, rolling, and harvesting.

Ultimately, pipeline operators are responsible for the safety of their pipelines. To ensure the safety of a pipeline, some pipeline operators may require the landowner/user to notify and obtain agreement for all crossing activities of that pipeline, even if the above conditions are met. Pipeline operators have the responsibility to identify the site-specific locations within their pipeline rights-of-ways where crossings in the above conditions will jeopardize the safe and secure operation of their pipeline. Each pipeline operator must communicate any specific crossing requirements to affected landowners/users.

Agricultural crossing conditions - agreement (leave) IS required

Landowners/users **must obtain agreement** from the pipeline operator before conducting any surface activity on the pipeline right-of-way when any of the allowable conditions outlined in the previous section are not met. Conditions that are **not** acceptable include the following:

1. Agricultural activities that disturb more than 30 centimetres (12 inches) of soil cover or change the landscape. These are considered to be “Call Before You Dig” situations.
2. When in operating mode, the agricultural vehicle or mobile equipment is removing or adding soil cover.
3. Soil conditions where excessive rutting is probable.
4. Any use of heavy agricultural vehicles or mobile equipment that may not be able to safely cross the pipeline, especially pipelines with reduced depth of cover or other factors increasing the risk of crossing as identified by the pipeline operator.

Examples of agricultural activities where agreement is required include, but are not limited to: stumping, sub-soiling, chisel plowing, terracing, drain tile excavating, driving posts, rotation of fences, leveling operations that change the pipeline depth of cover, and deep mechanical planting/harvesting.

Examples of heavy agricultural vehicles or mobile equipment where agreement is required include but are not limited to: large harvesters, large grain transporters (for instance, Super B-trains) and other overloaded vehicles that cross the pipeline.

IMPORTANT: A thorough assessment of pipeline safety requires detailed knowledge about ground conditions, design factors and operating characteristics. For these reasons, pipeline operators and landowners/users need to work together to make crossing assessments.

Obtaining agreements (leave)

The NEB endorses the following procedure when seeking agreements to cross a pipeline with agricultural equipment:

- (a) Where immediate agreement (leave) can be granted or advice on crossings is requested, the pipeline operator will review the crossing activity and respond within one (1) working day⁸. If the initial response is verbal, then written confirmation should follow shortly thereafter. Pipeline operators are required to maintain records of all agreements (leave) granted.
- (b) Where agreement (leave) is required, the pipeline operator should be prepared to assess the activity and provide the landowner/user with a response within two (2) working days. Under these conditions, written agreement should be provided with proper consultation, as required. In addition, when agreement has been granted by a pipeline operator, such agreement should remain in effect as long as the conditions under which the agreement was granted have not changed. Under certain special circumstances, the time period needed to allow the actual physical crossing to occur will vary because of additional evaluation and preparations to ensure safe crossing, as advised by the pipeline operator.

IMPORTANT: Where immediate agreement can be obtained, the pipeline operator will respond within one working day. Where assessment of the activity is required, the pipeline operator should respond to the landowner/user within two working days and provide written agreement defining the crossing conditions.

When the landowner/user cannot obtain agreement (leave) from the pipeline operator

When circumstances prevent agreement from being provided, the crossing request (application) can be reviewed by the NEB. NEB contact information appears at the end of this document.

⁸ Monday through Friday, 8:00am to 4:00pm, excluding statutory holidays.



REFERENCES

- *National Energy Board Act*
- *National Energy Board Pipeline Crossing Regulations, Parts I and II*



**Can I cross
with my
machinery?**

**When can
I cross?**

**Where can
I cross?**

APPENDIX A

ORDER MO-21-2010

AN EXEMPTION ORDER RESPECTING CROSSINGS BY AGRICULTURAL VEHICLES OR MOBILE EQUIPMENT

IN THE MATTER OF, Sections 48(1.1), 112(2) and 112(5)(c) of the National Energy Board Act, R.S. C. 1985, c. N-7 (Act)

BEFORE the Board on 22 December 2010.

WHEREAS Section 112(2) of the Act states that no person shall operate a vehicle or mobile equipment across a pipeline unless leave is first obtained from the pipeline company;

WHEREAS the National Energy Board (Board) may, pursuant to Section 112(5)(c) of the Act, make an order governing the circumstances in which or conditions under which leave under Section 112(2) of the Act is not necessary;

WHEREAS the Board considers it appropriate to enable landowners and land users to cross the right-of-way of buried NEB-regulated pipelines with agricultural vehicles or mobile equipment in certain, limited “low-risk” circumstances without the need to obtain leave from the pipeline company;

WHEREAS the Board notes that pipeline companies are responsible to ensure that pipeline safety and integrity are maintained to enable safe crossings over the right-of-way of buried pipelines;

IT IS ORDERED THAT:

1. Subject to Paragraphs (2) and (3), where all of the following low-risk conditions (“Low- Risk Conditions”) exist on the intended crossing location of the right-of-way of a buried pipeline, it is not necessary for landowners and land users to obtain leave from the pipeline company pursuant to Section 112(2) of the Act:
 - a) the agricultural vehicle or mobile equipment is used to perform an agricultural activity across the pipeline and does not disturb more than 30 centimetres (12 inches) of soil cover;
 - b) when in operating mode, the vehicle or mobile equipment is not removing or adding soil cover;
 - c) soil conditions are such that they ensure minimal rutting when agricultural vehicles or mobile equipment are driven over the pipeline; and
 - d) loaded axle weight and tire pressures are within the manufacturer’s approved limits and operating guidelines except for, but are not limited to: large harvesters, large grain transporters (for instance, Super B-trains).

2. The pipeline company has the responsibility to identify all site specific locations within its pipeline right-of-ways where crossings in Low-Risk Conditions will jeopardize the safe and secure operation of its pipeline.
3. In circumstances where the pipeline company has identified site specific locations within its pipeline right-of-ways where crossings in Low-Risk Conditions will jeopardize the safe and secure operation of its pipeline pursuant to Paragraph (2), the pipeline company shall provide written notification to:
 - a) the Board;
 - b) landowner(s) within identified location(s) along the pipeline right-of-way where crossings in Low-Risk Conditions will jeopardize the safe and secure operation of the pipeline; and
 - c) known land user(s) within identified location(s) along the pipeline right-of-way where crossings in Low-Risk Conditions will jeopardize the safe and secure operation of the pipeline; to advise that site-specific conditions exist such that crossing of its pipeline in Low-Risk Conditions requires leave of the pipeline company pursuant to Section 112(2) of the Act.
4. If landowners and land users are unsure if all of the Low-Risk Conditions noted in Paragraph (1) will be met in relation to the proposed agricultural activity or are unsure if the proposed agricultural activity could jeopardize the safe and secure operation of the pipeline, they must contact the pipeline company before crossing the pipeline with agricultural vehicles or mobile equipment.
5. In this Order,
 - a) "agricultural activities" includes the work of producing crops and raising livestock including tillage, plowing, disking, harrowing, pasturing, mushroom growing, nursery, and sod operations and installation of conservation measures; but does not include construction of new buildings, impervious area (i.e., cement) or placement of footings, foundations, pilings or fence posts.
 - b) "agricultural vehicle or mobile equipment" means a vehicle or mobile equipment used to perform agricultural activities.
 - c) "land users" means a person engaged in agriculture who raises livestock or grows crops, and rents or leases the farmed land or works as a service provider or employee.
 - d) "leave" means leave of the pipeline company referred to in Section 112(2) of the Act.
 - e) "pipeline" means a pipeline as defined in the Act.

National Energy Board

Anne-Marie Erickson
Secretary of the Board



Thank you for taking the time to learn about the NEB's new guidelines dealing with safe pipeline crossings using agricultural vehicles and mobile equipment.

Other publications that could also be helpful include the following:

- Pipeline Regulation in Canada: A guide for Landowners and the Public (Revised September 2010)
- Living and Working Near Pipelines - Landowner Guide - 2010
- Excavation and Construction Near Pipelines - 2005

The NEB's Mailing address is:

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