

SCHEDULE 'B'

Excavation and Operation of Heavy Equipment

1. The following conditions shall apply whenever any construction activities shall require the need for the operation of equipment or excavation near M&NP's Pipeline(s).
 - (a) To protect exposed M&NP Pipeline(s) from damage during the proposed work, M&NP's on-site inspector may require the Applicant to install certain safety precautions before beginning construction.
 - (b) To avoid possible damage to M&NP's Pipeline(s) while excavating, the Pipeline(s) shall be supported adequately, as directed by M&NP's on-site inspector.
 - (c) To avoid possible damage to M&NP's Pipeline(s), heavy equipment shall be restricted to crossing within the travelled portion of the easement unless other crossing locations are approved by M&NP's on-site inspector.
 - (d) Applicant shall provide at least three (3) business days' advance notice prior to commencing any excavation near M&NP's Pipeline(s).

General Conditions for Crossings of the Pipeline by Highways, Private Roads, Railways and Utilities

2. The following general conditions shall apply to Crossings of M&NP's Pipeline(s) by a highway, private road, railway or utility:
 - (a) In the case of a crossing of M&NP's Pipeline(s) by a highway, private road, railway or utility the Crossing shall, except as otherwise provided herein, conform to the respective specifications and requirements of the current Canadian Standards Association Code CAN/CSA Z662 – 99 for Gas Pipeline Systems and if the facility will result in the Maritimes Pipeline not conforming, the Crossing may be made only if the M&NP's Pipeline(s) is reconstructed to conform to such requirements, the cost of which shall be borne and paid for by the Applicant.
 - (b) The Applicant shall pay all costs to ensure M&NP's Pipeline(s) shall, in all cases, be of sufficient strength to withstand all stresses and strains resulting from the Crossing.

- (c) The Crossing shall be constructed so as to cross M&NP's Pipeline(s) at an angle as close as practicable to ninety (90) degrees but not less than forty-five (45) degrees.
 - (d) Parallel easements shall not encroach on the M&NP's Pipeline(s) easement without the prior written consent of M&NP and the owner of the lands being crossed.
- 3. At any crossing of M&NP's Pipeline(s), except crossings by overhead telephone, telegraph or power lines, M&NP's Pipeline(s) and the Facility shall be identified by suitable markers.
 - 4. A buried utility shall cross under M&NP's Pipeline(s) unless otherwise approved by M&NP. A clearance of not less than 0.3m shall be maintained at the point of crossing between the utility and M&NP's Pipeline(s) and all other underground structures. In all circumstances, minimum clearances as stipulated in the current edition of Canadian Standards Association CAN/CSA-Z662-99 "Gas Pipeline Systems" shall be complied with.

Underground utility crossings shall also be subject to the following design constraints:

- (a) Utilities must be installed at a level grade across the entire width of M&NP's Pipeline easement with the exception of gravity dependent structures. In such cases, the minimum clearances which are specified between the utility and M&NP's Pipeline(s) crossed must be maintained.
- (b) In the case of any Applicant's buried pipelines, no joints may be made over or under any M&NP Pipeline(s).
- (c) If Applicant's pipeline(s) will operate under pressure, it/they shall be pre-tested to at least the required test pressure prior to its installation across M&NP's Pipeline easement.
- (d) In the case of buried power cables, the Applicant shall install a 75mm thick concrete slab, or suitable equivalent, approved by M&NP, placed 300mm above the utility service installation, the full width of M&NP's Pipeline easement. There shall be a minimum separation of 300mm between the top of the concrete slab and the bottom of M&NP's Pipeline(s). This separation shall be maintained over the entire width of the M&NP Pipeline easement(s). The concrete slab should be un-reinforced red dye concrete. The utility shall be permanently identified with "caution" tape on top of the concrete slab.
- (e) In the case of buried cables, no joints, splices or other connections shall be made within the M&NP Pipeline easement.

- (f) The method of installation of all utilities crossing M&NP's Pipeline(s) below ground level must be specified in the Applicant's submission to M&NP.
- 5. A public highway, logging road or private road shall be constructed so that the traveled surface thereof shall be not less than 1.5m above the top of M&NP's Pipeline(s) or the casing pipe, where required. The bottom of the ditches shall be not less than 1.2m above the top of M&NP's Pipeline(s) or casing pipe.

Railway Crossing Requirements

- 6. The following conditions apply to the crossings of M&NP's Pipeline(s) by railways and shall supplement or supersede the conditions detailed in Section 2, 3, 4 and 5.
 - (a) Where M&NP specifications stipulate, M&NP's Pipeline(s) shall be encased in a metal casing pipe, to be installed by M&NP, the cost of which shall be borne and paid for by the Applicant.
 - (b) Railway crossings shall be constructed to allow the following minimum clearances:
 - (i) One point seven (1.7) meters between the top of M&NP's Pipeline(s) or casing pipe and the base of the rail for a distance of at least 8.0m from the centerline of the outermost track.
 - (ii) One point two (1.2) meters between the top of M&NP's Pipeline(s) or casing pipe and the bottom of the railway right-of-way ditch and/or natural ground surface.

Overhead Crossing Requirements

- 7. The following conditions apply to the crossing of M&NP's Pipeline(s) by overhead telephone, telegraph, telecommunication and electrical power lines:
 - (a) Prior to construction, the Applicant shall determine if electrical interference between the Applicant's facilities and M&NP's Pipeline(s) will occur. If so, the Applicant shall be responsible for providing mitigation design to a level of 15 volts A.C. Steady State; generally in accordance with CSA Standard C22.3 No 6M-1987 (or update), "Principles and Practices of Electrical Coordination Between Pipelines and Electric Supply Lines".

- (b) The vertical distance between the lowest wire of an overhead line catenary and the surface of the ground within the pipeline easement shall not be less than the minimum vertical clearance distance set out in that part of the Canadian Electrical Code Part III (CSA Standard C22.3, “Overhead Systems and Underground Systems”).
- (c) The poles, pylons, towers, guys, anchors and any other supports of an overhead line shall be located outside the M&NP Pipeline easement and not within ten (10) meters of any M&NP Pipeline appurtenance.
- (d) The Applicant, for an overhead line shall, where directed by M&NP, install aerial warning devices for the protection of M&NP personnel and equipment conducting aerial patrols.

Blasting Requirements

- 8. Prior written approval is required from M&NP if construction of the Facility requires the use of explosives. The Contractor shall comply with all applicable government laws, regulations and orders concerning the use, storage and transportation of explosives, including, but not limited to, the Canadian Explosives Act. The Applicant shall comply with the safety requirements of M&NP.
- 9. The following conditions shall apply whenever any construction activities shall require the need for blasting when working within thirty (30) meters of M&NP’s Pipeline(s):
 - (a) The effects of blasting shall be controlled.
 - (b) A leakage survey of the designated area shall be performed prior to and after blasting by the M&NP inspector to determine the effect of such operations, the cost of which shall be borne and paid for by the Applicant.
 - (c) When blasting is necessary in the vicinity of M&NP’s Pipeline(s) under pressure, the Applicant shall limit the intensity of the ground vibrations emanating from any particular blast, measured on the ground’s surface above the pipeline(s) at the location nearest to the blast to the following specifications:
 - (i) Maximum amplitude of vibrations 0.1524mm.
 - (ii) Maximum horizontal peak particle velocity 50mm/sec.
 - (iii) The permissible quantities of explosive per delay period shall be governed by the recorded measurements as influenced by the work site conditions.
 - (iv) Explosive agents must, in all instances, be acceptable to M&NP.

- (v) Delays shall be designed to prevent double readings.
- (vi) Further restrictions shall be stipulated, as required, by M&NP.

Cathodic Protection Requirements

10. Applicant agrees to install, at its cost, all cathodic protection facilities deemed necessary by M&NP to protect M&NP's Pipeline(s) or otherwise reimburse M&NP for the cost of such facilities and installation.