



**ORDER XO-E101-001-2017**

**IN THE MATTER OF** the *National Energy Board Act* (NEB Act) and the regulations made thereunder; and

**IN THE MATTER OF** an application dated 4 December 2014 filed with the National Energy Board (Board) by Enbridge Pipelines Inc. (Enbridge), pursuant to section 58 of the NEB Act respecting the Line 10 Westover Segment Replacement Project (Project) under File OF-Fac-Oil-E101-2015-09-02.

**BEFORE** the Board on 20 January 2017;

**WHEREAS** the Board received an application dated 4 December 2015 from Enbridge for the Project pursuant to section 58 of the NEB Act and section 45.1 of the *National Energy Board Onshore Pipeline Regulations* (OPR);

**AND WHEREAS** the Project includes the construction and operation of the replacement Line 10 Pipeline and associated facilities extending from Enbridge's Westover Terminal to its Nanticoke Junction Facility, both near the City of Hamilton, Ontario (Section 58 Facilities) and the decommissioning of the existing Line 10 pipeline (Existing Line 10 Pipeline);

**AND WHEREAS** Enbridge requested an order pursuant to section 58 of the NEB Act exempting Enbridge from the requirements of paragraphs 30(1)(b), 31(c) and 31(d), and sections 33 and 47 of the NEB Act in relation to the Section 58 Facilities;

**AND WHEREAS** the Section 58 Facilities are described in the attached Schedule A;

**AND WHEREAS** the Board held a public hearing in respect of the Project pursuant to Hearing Order OH-001-2016 during which the Board heard from Enbridge and the participants in the proceeding;

**AND WHEREAS** the Board has had regard to all considerations that were directly related to the Section 58 Facilities and were relevant, including environmental matters, pursuant to Part III of the NEB Act;

**AND WHEREAS** the Board has examined the evidence and the submissions, and considers it to be in the public interest to grant the following relief;

**IT IS ORDERED** that, pursuant to section 58 of the NEB Act, the Section 58 Facilities are exempt from the provisions of paragraphs 31(c) and 31(d) and section 33 of the NEB Act.

.../2

This Order is subject to the terms and conditions listed below.

In this Order, the terms or expressions (in bold) have the following meanings:

**Commencing construction** – the clearing of vegetation, ground-breaking and other forms of right-of-way (ROW) preparation that may have an impact on the environment (activities associated with normal surveying do not constitute commencing construction).

**For approval** – when a condition requires a filing for NEB approval, Enbridge must not commence the indicated activity until the Board issues its written approval of that filing.

**Including** – use of this term, or any variant of it, is not intended to limit the elements to just those listed. Rather, it implies minimum requirements with the potential for augmentation, as appropriate.

### **General Conditions**

#### ***1. Condition Compliance***

Enbridge must comply with all of the conditions contained in this Order, unless the Board otherwise directs.

#### ***2. Section 58 Facilities Design, Location, Construction, and Operation***

Enbridge must cause the Section 58 Facilities to be designed, located, constructed, installed, and operated in accordance with the specifications, standards and other information referred to in its Application or as otherwise agreed to during the hearing or in its related submissions.

#### ***3. Environmental Protection***

Enbridge must implement or cause to be implemented all of the policies, practices, programs, mitigation measures, recommendations and procedures for the protection of the environment included in or referred to in its Application or as otherwise agreed to during the hearing or in its related submissions.

#### ***4. Condition Compliance by the Accountable Officer***

Within 30 days after the date that the construction of the Section 58 Facilities is completed, Enbridge must file with the Board a confirmation that the Section 58 Facilities were completed and constructed in compliance with all applicable conditions in this Order. If compliance with any of these conditions cannot be confirmed, Enbridge must file with the Board details as to why compliance cannot be confirmed. The filing required by this condition must include a statement confirming that the signatory to the filing is the accountable officer of Enbridge, appointed as Accountable Officer pursuant to section 6.2 of the *National Energy Board Onshore Pipeline Regulations*.

## ***5. Order Expiration (Sunset Clause)***

Unless the Board otherwise directs prior to 26 January 2018, this Order expires on 26 January 2018, unless construction in respect of the Section 58 Facilities has commenced by that date.

### **Prior to Construction Conditions**

## ***6. Emergency Response Plans for Construction***

Enbridge must file with the Board, at least 60 days prior to commencing construction, an Emergency Response Plan that is specific to the Section 58 Facilities and that will be implemented during the construction phase of the Section 58 Facilities. The plan must include spill contingency measures that Enbridge will employ in response to accidental spills attributable to construction activities, 24-hour medical evacuation, fire response, and security.

## ***7. Finalized Watercourse Crossing Inventory and Design***

Enbridge must file with the Board, at least 60 days prior to commencing any watercourse crossing construction, the following:

- a) an updated inventory of all watercourses to be crossed, including, for each crossing:
  - i) the name of the watercourse being crossed and an identifier for the crossing;
  - ii) the location of the crossing;
  - iii) the primary and contingency crossing methods;
  - iv) planned construction timing;
  - v) information on the presence of fish and fish habitat;
  - vi) the restricted activity period;
  - vii) an indication of whether any of Fisheries and Oceans Canada's applicable "Measures to Avoid Causing Harm to Fish and Fish Habitat" cannot be implemented;
- b) detailed generic design drawings of trenchless, dry open-cut, frozen open-cut, and isolation crossings of various watercourse types;
- c) site-specific information for each watercourse crossing where any of Fisheries and Oceans Canada's applicable "Measures to Avoid Causing Harm to Fish and Fish Habitat" cannot be implemented for the primary watercourse construction method, including:
  - i) detailed crossing-specific engineered design drawings;
  - ii) photographs upstream, downstream, and at the crossing location;
  - iii) a description of the fish species and habitat that is present at the crossing location, and if fish spawning is likely to occur within the immediate area;

- iv) a description of the composition of the riparian habitat at the crossing location and an indication if the riparian habitat has a limiting effect on the productive capacity of the watercourse, and if its removal or disturbance represents a potential influence on fish communities;
- v) the site-specific mitigation and habitat enhancement measures to be used to minimize impacts;
- vi) any potential residual effects;
- vii) proposed reclamation measures; and
- viii) a discussion of the potential impacts to local fisheries resources within the immediate area as a result of the crossing's construction.

#### **8. *Environmental Protection Plan (EPP)***

Enbridge must file with the Board for approval, at least 45 days prior to commencing construction, a final and updated project-specific EPP. The EPP must describe all environmental protection procedures, and mitigation and monitoring commitments, as set out in the application or as otherwise agreed to during the hearing or in its related submissions. The EPP must include:

- a) any environmental mitigation or monitoring committed to under conditions of permits issued by or agreements made with the Ontario Ministry of Natural Resources and Forestry, the Municipality of Hamilton and the following Conservation Authorities: Grand River, Hamilton, and the Niagara Peninsula;
- b) site-specific mitigation for migratory birds;
- c) site-specific mitigation for provincially and federally listed species at risk;
- d) site-specific mitigation for wetlands;
- e) site-specific mitigation for lands with drainage tiles and irrigated lands in order to maintain the integrity of the tile drains;
- f) updated Environmental Alignment Sheets; and
- g) current drawings of typical construction practices.

#### **9. *Contingency Watercourse Crossings***

Enbridge must file with the Board a notification that it proposes to employ a contingency watercourse crossing method at any watercourse crossing instead of its proposed primary crossing method.

- a) Enbridge must file the notification with the Board at least 15 days prior to commencing a contingency watercourse crossing method, if Enbridge will implement all of Fisheries and Oceans Canada's applicable "Measures to Avoid Causing Harm to Fish and Fish Habitat". The notification must include the following information for the crossing location:
  - i) an explanation as to why the contingency watercourse crossing method is being employed; and

- ii) a summary of the differences between the primary and contingency watercourse crossing methods for that crossing location.
- b) Enbridge must file the notification with the Board, at least 30 days prior to commencing construction of a contingency watercourse crossing method, if Enbridge cannot implement all of Fisheries and Oceans Canada's applicable "Measures to Avoid Causing Harm to Fish and Fish Habitat". The notification must include the following information:
  - i) confirmation of the contingency watercourse crossing method that will be employed, the rationale for employing that method, and a summary of the differences between the primary and contingency watercourse crossing methods; and
  - ii) the following site-specific information:
    - i. detailed crossing-specific engineered design drawings;
    - ii. photographs upstream, downstream, and at the crossing location;
    - iii. a description of the fish species and habitat that is present at the crossing location, and if fish spawning is likely to occur within the immediate area;
    - iv. a description the composition of the riparian habitat at the crossing location and an indication if the riparian habitat has a limiting effect on the productive capacity of the watercourse, and if its removal or disturbance represents a potential influence on fish communities;
    - v. the site-specific mitigation and habitat enhancement measures to be used to minimize impacts;
    - vi. any potential residual effects;
    - vii. proposed reclamation measures; and
    - viii. a discussion of the potential impacts to local fisheries resources within the immediate area as a result of the crossing's construction.
- c) Enbridge must file with the Board, within 30 days after commencing operations, confirmation that:
  - i) any contingency watercourse crossing(s) identified to the Board pursuant to paragraph a) and b) were the only contingency watercourse crossing(s) implemented for the construction of the pipeline; or
  - ii) no contingency crossings were implemented during construction of the pipeline.

#### ***10. Fisheries Act Authorizations***

For any instream activities that will require Authorization under paragraph 35(2)(b) of the *Fisheries Act*, Enbridge must:

- a) file with the Board, at least 10 days prior to commencing the respective instream activities, a copy of the Authorization; and
- b) confirm, within 30 days after commencing operations, that any required *Fisheries Act* Authorizations were obtained from Fisheries and Oceans Canada and filed with the NEB pursuant to paragraph a), or notify the Board if no Authorizations were required.

### ***11. Commitments Tracking Table***

- a) Enbridge must file with the Board, at least 30 days prior to commencing construction, a Commitments Tracking Table that lists all commitments made by Enbridge in the Application or in its related submissions, or during the OH-001-2016 proceeding in relation to the Section 58 Facilities, including reference to:
  - i) the documentation in which reference to the commitment is made (for example: the Application and subsequent filings; response to information requests; the transcript reference; any permit, authorization or approval requirements; condition filings);
  - ii) the accountability for implementing each commitment; and
  - iii) the timelines associated with the fulfillment of each commitment.
- b) Enbridge must update the status of the commitments in paragraph a) on its project website. If the status of any commitment changes, Enbridge must advise the Board in writing of such updates as follows:
  - i) on a monthly basis until the commencement of operation; and
  - ii) on a quarterly basis until such time that all commitments have been fulfilled.

### ***12. Construction Aboriginal Monitoring Plan***

- a) Enbridge must file with the Board, at least 30 days prior to commencing construction, a plan describing participation by Aboriginal groups in monitoring activities during construction for archaeological resources and items or areas related to traditional land uses. The plan must include:
  - i) a summary of engagement activities undertaken with Aboriginal groups to determine opportunities for their participation in monitoring activities;
  - ii) a list of potentially affected Aboriginal groups, including Six Nations, that have reached agreement with Enbridge to participate in monitoring activities;
  - iii) the scope, methodology, and justification for monitoring activities to be undertaken by Enbridge and each participating Aboriginal group identified in paragraph ii), including those elements of construction and geographic locations that will involve Aboriginal monitor(s);
  - iv) a description of how Enbridge will use the information gathered through the participation of Aboriginal monitor(s); and

- v) a description of how Enbridge will provide the information gathered through the participation of Aboriginal monitor(s) to the participating Aboriginal group.
- b) Enbridge must provide a copy of the plan to Six Nations and to those Aboriginal groups identified in paragraph (a)(ii) no later than three days after filing the plan with the Board. Enbridge must file with the Board, prior to commencing construction, confirmation that it did so.

### ***13. Field Geotechnical Program – Detailed Assessments and Specifications***

Enbridge must file with the Board at least 30 days prior to commencing construction, the results of its Detailed Feasibility Assessments, as committed to in Enbridge's evidence, for each crossing where Enbridge intends to employ Horizontal Directional Drill (HDD) or Horizontal Directional Bore (HDB) methods. The results must include, but not be limited to the following:

- a) the selected primary crossing method and its rationale;
- b) detailed crossing-specific design drawings; and
- c) pipe specifications.

### ***14. Pipeline Construction Parallel to Overhead Power Lines - Corrosion Control Studies***

Enbridge must file with the Board at least 30 days prior to commencing construction, the results of the additional studies required due to the pipeline's parallel construction along overhead power lines, in accordance with CSA Z662-15 *Oil and gas pipeline systems*, CAN/CSA-C22.3 /No. 6 L3 *Principles and practices of electrical coordination between pipelines and electric supply lines*, and Enbridge Response to Hydro One Networks Inc. Information Request No 1.

The results must include, but not be limited to the following:

- a) a description of the detailed engineering and survey deliverables for the Section 58 Facilities to determine necessary offsets between power lines and the pipeline segment, taking into account the safety of people and the integrity of both the pipeline and the power line system;
- b) the details and mitigation measures for situations where recommended minimum separation cannot be maintained between the pipeline and power lines;
- c) any other selected measures to mitigate potential negative impacts of these overhead power lines on the pipeline segment's corrosion control system; and
- d) the details of the program that Enbridge will implement to monitor potential long term effects of the power lines on the pipeline segment's overall integrity.

### ***15. Construction Schedule***

Enbridge must file with the Board, at least 14 days prior to commencing construction, a detailed construction schedule that identifies major construction activities. Enbridge must notify the Board of any modifications to the schedule(s) as modifications occur.

## ***16. Manuals and Programs***

Enbridge must file with the Board, within the time specified for each manual, plan and program, the following:

- a) Construction Safety Manual – 14 days prior to commencing construction; and
- b) confirmation that a Security Management Plan for the construction of the Section 58 Facilities, pursuant to the OPR and CSA Z246.1 has been developed – 14 days prior to commencing construction.

## ***17. Heritage Resources***

- a) Enbridge must file with the Board, at least seven days prior to commencing construction:
  - i) confirmation that Enbridge has obtained all of the required archaeological and heritage resource clearances and authorizations from the Ontario Ministry of Tourism, Culture and Sport;
  - ii) a description of how Enbridge will meet conditions and respond to comments and recommendations contained in the clearances and authorizations referred to in i); and
  - iii) a description of how Enbridge has incorporated additional mitigation measures as applicable, into its Environmental Protection Plans as a result of conditions or recommendations referred to in paragraph b).
- b) Enbridge must provide a copy of the information filed under paragraph a) to Six Nations and to those Aboriginal groups identified in paragraph 12 (a)(ii) no later than three days after filing the information with the Board. Enbridge must file with the Board, prior to commencing construction, confirmation that it did so.

## ***During Construction Conditions***

### ***18. Issues Tracking***

Enbridge must create and maintain records that chronologically track complaints by Aboriginal groups and landowners (including municipal and regional governments) relating to the Project, beginning with the commencement of construction and continuing for five years after the commencement of operations. The records must be retained for five years after the commencement of operations. The complaint tracking records must include:

- a) the date the complaint was received;
- b) the form in which the complaint was received (for example, telephone, mail, email, or other communication methods that may evolve over time);
- c) the date and summary of all subsequent telephone calls, visits, correspondence, site monitoring/inspections, follow-up reports and other related documentation;
- d) updated contact information for all persons involved in the complaint;



- e) a detailed description of the complaint; and
- f) any further actions to be taken or an explanation why no further action is required.

### ***19. Technical Specifications Update***

Enbridge must file with the Board, as part of the leave to open application, all technical specification updates (i.e., as-built information) for the Section 58 Facilities. These updates must include, but not be limited to: pipeline length, diameter, pipe material grade, sectionalizing valves and locations, coating, seam weld type, main point-specific maximum operating pressures with their locations and wall thicknesses.

### ***20. Construction Progress Reports***

Enbridge must file construction progress reports with the Board, on a monthly basis during construction. The reports must include, but not be limited to, information on:

- a) the activities carried out during the reporting period;
- b) the summary of any environmental, socio-economic, safety and security issues and non-compliance; and
- c) the measures undertaken for the resolution of each issue and non-compliance.

### ***21. Leak Detection System Manual***

Enbridge must file with the Board, at least 60 days prior to applying for leave to open, the Leak Detection System (LDS) manual for the Section 58 Facilities. The LDS manual must include, but not be limited to, the following:

- a) senior management policy and commitment to leak detection;
- b) the roles, responsibilities, and authorities of personnel in the event of a suspected leak;
- c) the theory and rationale for each LDS (i.e., each independent leak detection method) design and application. Enbridge's LDS design must meet or exceed the expectation of Annex E of the CSA Standard Z662-15 Oil and Gas Pipeline Systems in regard to all class location designations along the Section 58 Facilities pipeline;
- d) the methodology and instrument requirements;
- e) performance indicators such as the accuracy, reliability, and sensitivity of the LDS;
- f) leak alarms and diagnostic messaging as well as related procedures;
- g) any information to be provided by the LDS to assist in operating the LDS and responding to any potential leak;
- h) the estimated maximum amount of product released before a leak is detected;
- i) the process to be followed with respect to the continuous improvement, non-conformity, audits and corrective protocols;
- j) the procedures for training;
- k) the procedures for LDS record keeping;

- l) the procedures for LDS performance evaluation; and
- m) the plan for maintenance, testing methods (i.e., simulated signal, fluid withdrawal, etc.), and frequency of testing.

## ***22. Pressure Testing Program***

Enbridge must file with the Board its hydrostatic pressure testing program, pursuant to section 23 of the OPR, at least 30 days prior to the commencement of hydrostatic pressure testing.

## ***23. Joining Program***

Enbridge must file with the Board its joining program, pursuant to section 16 of the OPR, at least 30 days prior to the commencement of pipes and components joining.

## ***24. Horizontal Directional Drill and Horizontal Directional Bore Contingency Plans***

- a) For any unsuccessful Horizontal Directional Drill (HDD) or Horizontal Directional Bore (HDB) crossing where Enbridge will employ a contingency construction instead of its proposed primary plan, Enbridge must file with the Board at least 10 days prior to commencing the contingency construction:
  - i) confirmation of the HDD or HDB contingency installation plan that will be employed, the rationale for employing that plan, and a summary of the differences between the primary and contingency plans;
  - ii) the updated detailed crossing-specific design drawings and the new pipe specifications (if changed); and
  - iii) the detailed measures that Enbridge will implement to mitigate potential safety and environmental issues related to any abandoned drilling holes resulting from unsuccessful HDDs or HDBs.
- b) Enbridge must file the results of its Detailed Feasibility Assessments for any previously unplanned HDDs or HDBs that may be decided during construction activities, based on field conditions, at least 10 days prior to commencing construction.

## ***Post-Construction and Operation Conditions***

### ***25. Post-Construction Aboriginal Monitoring Plan***

- a) Within 90 days after the date that the last order is issued for leave to open, Enbridge must file with the Board a plan describing participation by Aboriginal groups in monitoring activities during the operation of the pipeline. The plan must include:
  - i) a summary of engagement activities undertaken with Aboriginal groups to determine opportunities for their participation in monitoring activities;
  - ii) a list of potentially affected Aboriginal groups, including Six Nations, that have reached agreement with Enbridge to participate in monitoring activities;

- iii) the scope, methodology, and justification for monitoring activities to be undertaken by Enbridge and each participating Aboriginal group identified in ii), including those elements of construction and geographic locations that will involve Aboriginal monitor(s);
  - iv) a description of how Enbridge will use the information gathered through the participation of Aboriginal monitor(s); and
  - v) a description of how Enbridge will provide the information gathered through the participation of Aboriginal monitor(s) to the participating Aboriginal group.
- b) Enbridge must provide a copy of the plan to Six Nations and to those Aboriginal groups identified in paragraph (a)(ii) no later than three days after filing the plan with the Board. Enbridge must file with the Board, within one week after providing the copies, confirmation that it did so.

## ***26. Leak Detection System (LDS) Test Results***

Enbridge must file with the Board the following information within six months after commencing operations:

- a) the results of its detailed engineering of the Line 10 LDSs; and
- b) the results of associated studies to validate the actual sensitivity, accuracy and reliability performance of each of Line 10 LDS computational pipeline monitoring systems (i.e., Material Balance System, Automated Volume Balance, Scheduled Line Balance Calculations, Rupture Detection and Automated Pressure Deviation) under normal, abnormal, or degraded operating conditions.

## ***27. Pressure Surge and Overpressure Protection***

Enbridge must conduct a hydraulic analysis of the Section 58 Facilities and file with the Board the following information within six months after commencing operations:

- a) the pressure control and overpressure protection systems (including the design and operation of equipment, devices, and system components) that Enbridge implemented for the Section 58 Facilities in accordance with Clause 4.18 of CSA Z662-15;
- b) an actual surge pressure test (i.e., field test under operating conditions) report that considers all potential surge pressure scenarios (including, but not limited to, overpressure entering the line, and closure or malfunction of sectionalizing and pressure safety and control valves) for the proposed operating conditions;
- c) for each scenario identified in the report requested in paragraph b), specify each location along the pipeline and equipment where the surge pressure exceeds the MOP by more than 10 per cent or 35 kPa, whichever is greater; and
- d) the corrective measures that Enbridge would implement to prevent any potential overpressures identified in paragraph c) above.

## ***28. Geographic Information System (GIS)***

Enbridge must file with the Board, within one year after commencing operations, GIS data in the form of an Esri® shape file that contains pipeline segment centre lines, where each segment has a unique outside diameter, wall thickness, maximum operating pressure (MOP), external coating, field-applied girth weld coating, and pipe manufacturing specification. If the above values of the pipeline change at any point along the length of the pipeline, the pipeline must be segmented at that point. The datum must be NAD83 and projection must be geographic (latitudes and longitudes).

## ***29. Emergency Response Exercises***

Within 18 months after commencing operations, Enbridge must:

- a) conduct one tabletop emergency response exercise and one equipment deployment exercise along the Section 58 Facilities. The objective of the emergency response exercise must be to test the effectiveness and adequacy of the following:
  - i) Emergency Procedures Manual;
  - ii) training of company personnel;
  - iii) communications systems;
  - iv) coordination of emergency response activities with responders, mutual aid partners and other agencies;
  - v) response equipment;
  - vi) safety procedures; and
  - vii) exercise debrief process.
- b) notify the Board in writing, at least 45 days prior to the date of each emergency response exercise referred to in paragraph a), of the following:
  - i) location of the exercise;
  - ii) exercise coordinator;
  - iii) date of the exercise;
  - iv) duration of the exercise;
  - v) the name and organization of each individual invited to participate in the exercise;
  - vi) type of exercise (that is, tabletop, or equipment deployment); and
  - vii) goals (for example, focus of exercise, scope, scale, extent of play, format, evaluation method), and how success is measured.
- c) file with the Board, within 90 days after completion of each emergency response exercise referred to in paragraph a), a report that documents the results of the exercise including:
  - i) how the exercise achieved the stated objectives;

- ii) Participant feedback and areas for improvement; and
- iii) a corrective action plan to address the findings from the exercise.

### ***30. Post-Construction Environmental Monitoring Reports***

Enbridge must file with the Board, on or before 31 January after each of the first, third and fifth complete growing seasons following completion of final cleanup of the Section 58 Facilities, a post-construction environmental monitoring report that:

- a) describes the methodology used for monitoring, the criteria established for evaluating success and the results found;
- b) identifies the issues to be monitored, including but not limited to unexpected issues that arose during construction, and their locations (for example, on a map or diagram, or in a table);
- c) describes the current status of the issues (resolved or unresolved), any deviations from plans and corrective actions undertaken (for example, the status of wetland recovery);
- d) assesses the effectiveness of the mitigation (planned and corrective) measures applied against the criteria for success;
- e) provides proposed measures and the schedule that Enbridge would implement to address ongoing issues or concerns.

### ***31. Leak Detection System (LDS) Methods***

- a) Enbridge must operate Line 10 using a LDS that meets or exceeds the minimum requirements set out in Annex E of the CSA Standard Z662-15 Oil and Gas Pipeline Systems (Annex E);
- b) Enbridge must conduct the following actions:
  - i) shut down the operation of the pipeline anytime when Enbridge identifies that a component or method of the LDS might be degraded in a manner that potential leaks, within normal or published detection thresholds of the LDS, may no longer be detected in a timely manner; and
  - ii) during the first three years after commencing operations of the pipeline, report to the Board the details of any event as described in paragraph b) i), within 30 days after the event occurrence; and
- c) Enbridge must not use alternative leak detection methods such as tank gauge measurement as primary leak detection means to mitigate any failure of its continuous computational pipeline monitoring systems, if these alternative methods cannot provide equivalent sensitivity and accuracy in complying with Annex E, Table E.1.

### **32. Valve placement**

Enbridge must:

- a) not operate the pipeline beyond the operating conditions and assumptions (including the pipeline maximum flow capacity, risk for high consequence areas, and pipe specifications) that were considered as bases of Enbridge's determination of the number and spacing of Remote Sectionalizing Valves along the Section 58 Facilities; and
- b) continually monitor all the factors involved in its Intelligent Valve Placement program for the Section 58 Facilities, and evaluate the need for installing additional valves. Enbridge must apply for and obtain the Board's approval prior to operating the Section 58 Facilities beyond the operating conditions and assumptions that were the bases of Enbridge's determination as referred to in paragraph a) above.

Issued at Calgary, Alberta on 26 January 2017.

NATIONAL ENERGY BOARD

*Original signed by*

Sheri Young  
Secretary of the Board

**SCHEDULE A**  
**National Energy Board Order XO-E101-001-2017**

**Enbridge Pipelines Inc.**  
**Application dated 4 December 2015**  
**assessed pursuant to section 58 of the *National Energy Board Act***  
**Line 10 Westover Segment Replacement Project**  
**File OF-Fac-Oil-E101-2015-09-02**

Pipeline Specifications – Line 10 Westover Segment Replacement Pipeline

<b>Project Type</b>	Pipeline Replacement (new construction)
<b>Location (endpoints)</b>	From Westover Terminal (KP 0) to Nanticoke Junction Facility (KP 35), both near the City of Hamilton, Ontario
<b>Approximate Length</b>	35 km
<b>Outside Diameter</b>	508 mm (NPS 20)
<b>Minimum Wall Thickness</b>	7.14 mm
<b>Pipe Material</b>	Carbon steel
<b>Pipe Material Standard</b>	CSA Z245.1
<b>Pipe Grade</b>	Grade 483 MPa (X70)
<b>External Coating Type</b>	<ul style="list-style-type: none"> <li>• General: fusion bond epoxy (FBE);</li> <li>• Field girth welds: coating compatible with plant-applied FBE;</li> <li>• Trenchless sections: FBE with abrasion resistant dual powder coating.</li> </ul>
<b>Pipe Manufacture Process</b>	Electric resistance welded

**SCHEDULE A (Continued)**  
**National Energy Board Order XO-E101-001-2017**

**Line 10 Westover Segment Replacement Project**

Facility Specifications – Westover Terminal

<b>Project Type</b>	Modification
<b>Facility Type</b>	Terminal
<b>Location</b>	Westover Terminal (KP 0)
<b>Description</b>	<ul style="list-style-type: none"><li>• One new pig launching trap</li><li>• One new ultrasonic leak detection meter, including electrical and instrumentation</li><li>• Piping: NPS 20 (508 mm) and NPS 24 (609.6 mm)</li></ul>
<b>Maximum Operating Pressure</b>	9,930 kPa
<b>Product</b>	Low Vapour Pressure Crude Oil Hydrocarbons