



CERTIFICATE OC-56

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

IN THE MATTER OF the *Canadian Environmental Assessment Act* (CEA Act), as amended and the regulations made thereunder; and

IN THE MATTER OF an application dated 27 February 2009, TransCanada Keystone Pipeline GP Ltd. (Keystone) pursuant to Parts III and IV, section 52 of the NEB Act, for a certificate of public convenience and necessity authorizing the construction and operation of the Keystone XL Pipeline Project (Project), which is filed with the National Energy Board under File OF-Fac-Oil-T241-2009-01 01.

BEFORE the Board on 4 March 2010.

WHEREAS the Project, as described in the attached Schedule A, has an estimated cost of \$1.7 billion;

AND WHEREAS pursuant to the CEA Act, the Board has considered the information submitted by Keystone and other interested persons and has performed an environmental assessment of the Project by way of a screening;

AND WHEREAS the Board has determined, pursuant to paragraph 20(1)(a) of the CEA Act, that, taking into account the implementation of proposed mitigative measures and those set out in the attached conditions, the Project is not likely to cause significant adverse environmental effects;

AND WHEREAS a public hearing was held pursuant to Hearing Order OH-1-2009 on 15, 16, 17, 18, 21, 22, 23, 24 and 25 September 2009 and on 1 and 2 October 2009 in Calgary, Alberta, during which the Board heard from Keystone and interested parties to the proceeding;

AND WHEREAS the Board determined that the Project is and will be required by the present and future public convenience and necessity;

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AND WHEREAS the Governor in Council by Order in Council No. P.C. 2010-489 dated the 22nd day of April 2010, has approved the issuance of this Certificate;

NOW THEREFORE pursuant to section 52 of the NEB Act, the Board hereby issues this Certificate in respect of the Project.

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

General

1. Keystone shall comply with all of the conditions contained in this Certificate unless the Board otherwise directs.
2. Keystone shall cause the approved Project 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 questioning or in its related submissions.
3. Keystone shall 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 questioning in the OH-1-2009 proceeding or in its related submissions.

Prior to Construction Activities (including clearing or ground-breaking activities)

4. Keystone shall maintain at its construction office(s):
 - a) an updated Environmental Commitments Tracking Table listing all regulatory commitments, including but not be limited to all commitments resulting from:
 - i) the NEB application and subsequent filings;
 - ii) undertakings made during the OH-1-2009 proceedings; and
 - iii) conditions from permits, authorizations and approvals.

Keystone shall also file the updated Environmental Commitments Tracking Table, with the Board 15 days prior to construction.

- b) copies of any permits, approvals or authorizations for the applied-for facilities issued by federal, provincial or other permitting agencies, which include environmental conditions or site-specific mitigative or monitoring measures; and

- c) any subsequent variances to any permits, approvals or authorizations.
5. Keystone shall file with the Board either:
- a) upon successful completion of the Horizontal Directionally Drilled (HDD's) or HD bore watercourse crossing for the Red Deer, South Saskatchewan, and Frenchman Rivers and Piapot Creek, confirmation of their completion; or
 - b) in the event of any changes to the proposed HDD/HD bore watercourse crossing method for the Red Deer, South Saskatchewan or Frenchman Rivers or Piapot Creek, at least 10 days prior to crossing,
 - i) notification in writing of such change to the proposed crossing method and the reason for that change;
 - ii) evidence of consultation with appropriate provincial and federal regulatory authorities that have an interest in the watercourse crossings and provide copies of all relevant correspondence from them; and
 - iii) file for approval, at least 10 days prior to implementing the revised watercourse crossing method, a description of amended reclamation and re-vegetation measures, and fish and fish habitat monitoring for the affected watercourse crossings.
6. Keystone shall file with the Board for approval, at least 60 days prior to starting each pre-construction survey:
- a) a methodology for conducting the surveys for rare and SARA listed plants and rare ecological communities;
 - b) a methodology for conducting the confirmatory surveys for faunal species of management concern (including Ord's kangaroo rat, swift fox, ferruginous hawk, burrowing owl, black tailed prairie dog, sharp tailed grouse, loggerhead shrike and SARA listed amphibians); and
 - c) evidence of consultation on the above methodologies with appropriate provincial and federal regulatory authorities and provide copies of correspondence from these regulatory authorities regarding the methodology.

7. Keystone shall file with the Board for approval, at least 60 days prior to construction:
- a) the results of the confirmatory surveys for species of management concern, including Ord's kangaroo rat, swift fox, ferruginous hawk, burrowing owl, black tailed prairie dog, sharp tailed grouse, loggerhead shrike and SARA listed amphibians;
 - b) a detailed mitigation plan for each of the above species affected by construction and operation activities;
 - c) evidence of consultation with appropriate provincial and federal regulatory authorities and copies of correspondence from these regulatory authorities regarding satisfaction with the proposed mitigation; and
 - d) confirm that the EPP has been updated to include the mitigation measures.

Construction shall not commence until Keystone has received approval of its SARA survey results and mitigation plans from the Board.

8. Keystone shall file with the Board for approval, at least 60 days prior to construction:
- a) the results of the surveys for rare and SARA listed plants and rare ecological communities;
 - b) a detailed mitigation plan for each of these species affected by construction activity, including but not limited to:
 - i) measures to be implemented during construction;
 - ii) measures and a monitoring survey protocol for post-construction reclamation; and
 - iii) a survey methodology for determining the extent of non-avoidable impacts on rare and SARA listed plants and rare ecological communities.
 - c) evidence of consultation with appropriate provincial and federal regulatory authorities and copies of correspondence from these regulatory authorities regarding satisfaction with the proposed mitigation plan; and
 - d) confirmation that the EPP has been updated to include the relevant mitigation measures.

Construction shall not commence until Keystone has received approval of its SARA survey results and mitigation plans from the Board.

9. Keystone shall file with the Board for approval, at least 120 days prior to leave to open, a plan for the provision and implementation of offset measures for all non-avoidable impacts on rare and SARA listed plants and rare ecological communities. The plan shall include but not be limited to, the results from surveys for determining the extent of non-avoidable impacts, and evidence of consultations with appropriate government agencies and relevant stakeholders.
10. Keystone shall file with the Board for approval, at least 60 days prior to construction, a comprehensive wetland survey. The survey shall include:
 - a) the methodology for conducting the survey;
 - b) the results of the survey;
 - c) the criteria, and the rationale for the criteria, for the crossing methods and mitigation measures to be employed;
 - d) evidence demonstrating consultation with appropriate provincial and federal regulatory authorities; and
 - e) confirmation that the EPP has been updated to include the mitigation measures.
11. Keystone shall file with the Board for approval, at least 60 days prior to construction, additional surveys and assessments committed to in its 28 August 2009 Supplemental evidence necessary to address facility location and route changes extending beyond the 1 km wide study corridor assessed for the ESA.

The surveys and assessments shall include:

- a) the methodology for conducting the surveys (for those methodologies not otherwise conditioned);
- b) the results of the surveys;
- c) mitigation measures;
- d) evidence of consultation with appropriate provincial and federal regulatory authorities; and
- e) confirmation that the EPP has been updated to include the mitigation measures.

12. Keystone shall file with the Board for approval, at least 60 days prior to construction:
 - a) the results of the pre-construction weed surveys to identify the presence and density of weeds in areas that will be affected by the construction of the Keystone XL pipeline;
 - b) the methodology for conducting the surveys;
 - c) evidence demonstrating consultation with appropriate provincial and federal regulatory agencies regarding the methodology and results; and
 - d) confirmation that the EPP has been updated to include the mitigation measures.
13. Keystone shall file with the Board for approval
 - a) at least 90 days prior to the commencement of construction, a draft Project-specific Environmental Protection Plan (EPP). The EPP shall be a comprehensive compilation of all environmental protection procedures, mitigation measures, and monitoring commitments, as set out in Keystone's application for the Project, subsequent filings or as otherwise agreed to during questioning in the OH-1-2009 proceeding or in its related submissions. The EPP shall also include measures arising from additional studies conducted in 2009 and 2010 with updated Environmental Alignment Sheets. The EPP, as appropriate, shall include but not be limited to:
 - i) seed mixes and criteria for their use in the reclamation of the project and confirmation that appropriate provincial and federal regulatory agencies have commented on the proposed seed mixes,
 - ii) evidence that landowners have been consulted on seed mixes to be applied to their directly affected land;
 - iii) an updated Weed Management Plan, including evidence demonstrating consultation with appropriate provincial and federal regulatory agencies, and directly affected landowners in developing the plan;
 - iv) a Great Sand Hills Reclamation plan for pipeline construction, developed in consultation with appropriate provincial and federal regulatory agencies;
 - v) a Traffic Management Plan to minimize total activity including, where relevant, construction within 500 m buffer zone of Prairie dog colonies; and

- vi) special trenchwater management procedures in areas where there is a likelihood of encountering shallow brine-impacted groundwater during dewatering for pipeline construction.
- b) at least 45 days prior to the commencement of construction, a final EPP for approval, which shall include but not be limited to, updated mitigations and any other updates resulting from survey results, and any changes resulting from consultation on the previous draft EPP. Keystone shall also provide evidence of consultations and describe how any outstanding concerns will be addressed.

Construction shall not commence until Keystone has received approval of its EPP.

14. Keystone shall file with the Board, at least 30 days prior to commencement of construction:
 - a) a copy of the letter of clearance received under the *Alberta Historical Resources Act*;
 - b) all comments and recommendations received from the provincial authorities in Saskatchewan and Alberta regarding the Heritage Resources Impact Assessments; and
 - c) for approval, the mitigation measures that Keystone proposes to address the comments and recommendations in b).
15. Keystone shall file with the Board, for approval, at least 60 days prior to construction, a quantitative assessment of greenhouse gas (GHG) emissions expected to directly result from the Keystone XL pipeline and its associated facilities, as applied for. The study shall cover both construction and operation of the pipeline and its associated facilities. In addition to the results of the assessment, the filing shall describe the calculation methodology used, identify assumptions and inputs, and describe what variables may affect the results. The filing should also describe mitigation measures to reduce emissions.
16. Keystone shall continue to consult with Aboriginal groups who have expressed interest in the Project regarding the details of construction phase of the project as well as its plan for monitoring procedures for the protection of Aboriginal heritage and traditional resources.

Keystone shall file with the Board, at least 60 days prior to the commencement of construction, an update on its consultations with Aboriginal people, including:

- a) concerns raised by Aboriginal people;
- b) a summary indicating how Keystone will address any concerns raised during these consultations; and

- c) its plan describing monitoring procedures for the protection of Aboriginal heritage and traditional resources during construction.

During Construction:

17. In the event of construction or clearing activities within restricted activity periods for migratory birds, Keystone shall retain a qualified avian biologist to carry out a pre-construction survey to identify any migratory birds and active nests in areas immediately surrounding the site (30 metres for migratory birds and 100 metres for raptors) and shall file with the Board at least 30 days prior to those construction or clearing activities:
 - a) the results of the survey;
 - b) mitigation, including monitoring, developed in consultation with Environment Canada and Canadian Wildlife Service, to protect any identified migratory birds or their nests; and
 - c) mitigation, including monitoring, developed in consultation with Environment Canada and Canadian Wildlife Service to protect any identified *Species at Risk Act* birds or their nests; and
 - d) evidence to confirm that the appropriate provincial and federal regulatory authorities have been consulted, on the proposed methodology for the survey, the results from the survey and the mitigation and monitoring to be used, and a description of any outstanding concerns they may have.

If no construction or clearing activities occur within restricted activity periods for birds, Keystone shall notify the Board of this within 15 days following the last restricted activity period to occur during construction.

18. For the duration of construction and for a period of at least five years following leave to open, Keystone shall maintain and upon request file with the Board a construction consultation and complaint monitoring report that provides a Landowner Consultation Tracking Table that will include, but not be limited to:
 - a) a description of any landowner consultations undertaken including the method of consultation, dates, and a summary of any comments or concerns raised by landowners or potentially affected persons or groups;
 - b) a summary of actions undertaken by Keystone to address each of the comments or concerns raised by potentially affected persons or groups; and
 - c) a description of how Keystone intends to measure whether and to what extent it is achieving its stated objectives regarding consultation.

Post Construction Activities:

19. Keystone shall file with the Board, 6 months after the commencement of operation, and on or before the 31st January for each of the subsequent 5 years, 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) assesses the effectiveness of the mitigation measures applied during construction against the criteria for success;
 - c) identifies deviations from plans and alternate mitigation applied as approved by the Board;
 - d) identifies locations on a map or diagram where corrective action was taken during construction and the current status of corrective actions; and
 - e) provides proposed measures and the schedule Keystone shall implement to address any unresolved concerns.

Prior to Operation

20. Thirty days prior to requesting the leave to open provide a list of pipe that was received from the pipe supplier(s), identifying each manufacturer, identifying a traceable number with which each received pipe can be identified, an indication of whether the pipe was acceptable as received or not, and a list of all defects (as defined by CSA Z245.1), means of fixing defects, and source of defect (manufacturing, handling, installation).

Post-Construction and During Operations

21. Within 30 days of the date that the approved Project is placed in service, Keystone shall file with the Board a confirmation, by an officer of the company, that the approved project was completed and constructed in compliance with all applicable conditions in this Certificate. If compliance with any of these conditions cannot be confirmed, the officer of the company shall file with the Board details as to why compliance cannot be confirmed. The filing required by this condition shall include a statement confirming that the signatory to the filing is an officer of the company.

Expiration of Certificate:

22. Unless the Board otherwise directs prior to 11 March 2011, this Certificate shall expire on 11 March 2011 unless construction in respect of the Project has commenced by that date.

Issued at Calgary, Alberta on the 27th day of April 2010.

NATIONAL ENERGY BOARD

A handwritten signature in black ink, appearing to read "A. Erickson", written over the word "for".

for
Anne-Marie Erickson
Secretary of the Board

Attachment

**Schedule A
National Energy Board OC-56**

**TransCanada Keystone Pipeline GP Ltd.
Application dated 27 February 2009 for the Keystone XL Pipeline Project**

**Project Assessed Pursuant to the NEB Act
File OF-Fac-Oil-T241-2009-01 01**

Pipeline Specifications

Construction Type	New
Name	Keystone XL Pipeline Project
Location	Hardisty, Alberta to Monchy, Saskatchewan
Approximate Length	529 km
Minimum Wall Thickness	11.8 to 18.8 mm
Class	1
Maximum Operating Pressure	9930 kPA (up to 11030 kPA in low lying areas)
Outside Diameter	914 mm
Steel Grade	Grade 483 with consideration given to Grade 550
Pipe Material Standard	CSA Z245.1-07
External Coating Type	Fusion Bonded Epoxy
Product	Crude oil products