

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA

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HP 14-001

IN THE MATTER OF THE APPLICATION :  
BY TRANSCANADA KEYSTONE :  
PIPELINE, LP FOR A PERMIT UNDER THE :  
SOUTH DAKOTA ENERGY CONVERSION :  
AND TRANSMISSION FACILITIES ACT TO :  
CONSTRUCT THE KEYSTONE XL :  
PROJECT, :

DIRECT TESTIMONY OF  
HEIDI TILLQUIST

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Pursuant to the Commission’s Order Granting Motion to Define Issues and Setting  
Procedural Schedule, Petitioner TransCanada Keystone Pipeline, LP, offers the following direct  
testimony of Heidi Tillquist.

**1. Please state your name and address for the record.**

Answer: My name is Heidi Tillquist. My business address is Stantec Consulting  
Services Inc., 2950 E. Harmony Road, Suite 290, Fort Collins, CO 80528.

**2. Please state your position and provide a description of your areas of responsibility  
with respect to the Keystone XL Project.**

Answer: I am a contractor of Keystone. I am employed as an environmental toxicologist  
and Director of Oil & Gas Risk Management with Stantec Consulting Services Inc. I have  
provided environmental consulting services to Keystone with respect to the Keystone XL  
Project. I am responsible for evaluating risk posed by the Project to human and environmental  
resources.

**3. Please state your professional qualifications and experience with pipeline operations.**

Answer: My professional background is stated in my resume, a copy of which is attached as Exhibit A. My education consists of a bachelor's degree in fishery and wildlife biology, and a master's degree in environmental toxicology. In general, I have over 25 years of experience in environmental consulting, including environmental toxicology and conducting environmental risk assessments and water quality assessment and analysis. I have previously testified before the Commission in the permit proceedings concerning the Keystone Pipeline in Docket HP 07-001 and concerning the Keystone XL Pipeline in Docket HP 09-001.

**4. Are you responsible for portions of the Tracking Table of Changes attached as Appendix C to Keystone's certification petition?**

Answer: Not directly. In general, I can testify to the risk assessments related to the Keystone XL Pipeline, including spill frequency. I am familiar with the design changes addressed in the Tracking Table as a result of Keystone's decision to withdraw its Special Permit application with PHMSA, as well as the minor route variations in South Dakota. The design and route changes have not affected the overall conclusion of the spill frequency analysis to which I testified in connection with the permit application. With respect to Finding No. 50, the minor route changes have caused slight changes resulting in a reduced probability of a spill occurring within High Consequence Areas. As a result, the statement that a spill that could affect an HCA would occur no more than once in 250 years would now be altered to no more than once in 460 years, based on 15.8 miles of HCAs crossed in South Dakota. The 2009 Keystone XL Risk

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Direct Testimony of Heidi Tillquist.

Assessment, which is Appendix P to the Final Supplemental Environmental Impact Statement, and its conclusions remain valid. .

**5. Are you able to address issues related to worst case spill scenarios, environmental cleanup in the event of a spill, and the potential impacts to groundwater resources?**

Answer: Yes. I participated in answering discovery in this proceeding with respect to all of these issues. While nothing with respect to these issues has changed since the Amended Final Decision and Order, I can answer questions at the hearing related to these issues.

**6. Are you aware of any reason that Keystone cannot continue to meet the conditions on which the Permit was granted by the Commission?**

Answer: No. I have reviewed the conditions contained in the Amended Final Decision and Order. With respect to risk assessment and environmental toxicology, the changes discussed in the Tracking Table do not affect Keystone's ability to meet the conditions on which the Permit was granted.

**7. Does this conclude your prepared direct testimony?**

Answer: Yes.

Dated this 31 day of March, 2015.

  
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Heidi Tillquist