ATTACHMENT E

TRANSCANADA'S RESPONSES TO BOLD NEBRASKA'S SECOND INTERROGATORIES AND REQUESTS FOR PRODUCTION OF DOCUMENTS

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION :

HP 14-001

BY TRANSCANADA KEYSTONE

PIPELINE, LP FOR A PERMIT UNDER

THE SOUTH DAKOTA ENERGY

CONVERSION AND TRANSMISSION

FACILITIES ACT TO CONSTRUCT THE

KEYSTONE XL PROJECT

KEYSTONE'S RESPONSES TO

BOLD NEBRASKA'S SECOND

INTERROGATORIES AND

REQUESTS FOR PRODUCTION

OF DOCUMENTS

Applicant TransCanada makes the following responses to interrogatories pursuant to SDCL § 15-6-33, and responses to requests for production of documents pursuant to SDCL § 15-6-34(a). These responses are made within the scope of SDCL 15-6-26(e) and shall not be deemed continuing nor be supplemented except as required by that rule. Applicant objects to definitions and directions in answering the discovery requests to the extent that such definitions and directions deviate from the South Dakota Rules of Civil Procedure.

GENERAL OBJECTION

Keystone objects to the instructions and definitions contained in Bold Nebraska's Second Interrogatories and Requests for Production of Documents to the extent that they are inconsistent with the provisions of SDCL Ch. 15-6. *See* ARSD 20:10:01:01.02. {01844698.1}

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Keystone's answers are based on the requirements of SDCL §§ 15-6-26, 15-6-33, 15-6-34, and 15-6-36.

INTERROGATORIES

INTERROGATORY NO. 67: For each person who you expect to call as a fact witness in Docket HP14-001, provide a description of the witness's educational background, specialized training, and employment history relevant to the witness's expected testimony and a description of all exhibits that the witness will attach to his or her testimony.

ANSWER: Resumes for Keystone's witnesses were previously produced as Keystone 1341-1374. Keystone has not yet identified its hearing exhibits, but will disclose them as required by order of the Commission.

INTERROGATORY NO. 68: Describe the information furnished by TransCanada to each fact witness for the purposes of his or her testimony.

ANSWER: Other than a copy of the discovery requests, TransCanada has not furnished any information to its fact witnesses for purposes of providing testimony in this proceeding. The witnesses have provided information used in answering discovery based on their work on the Keystone XL project.

INTERROGATORY NO. 69: With regard to Fact Paragraphs 14, 24, and 27, identify each person that has communicated an intention to TransCanada to construct infrastructure that would physically connect to and deliver crude oil into the Keystone XL

Pipeline in Montana, and provide a description of all communications and documents exchanged between TransCanada and such person or persons.

OBJECTION: The identity of Keystone's shippers has substantial commercial and proprietary value, is subject to substantial efforts by Keystone to protect it from actual and potential competitors, and is required to be maintained on a confidential basis pursuant to the terms of the contracts between Keystone and its shippers. Moreover, the request is irrelevant and not likely to lead to the discovery of admissible evidence.

INTERROGATORY NO. 70: With regard to Fact Paragraphs 24, 26, and 27, identify the persons that own or control infrastructure that is physically attached to the Keystone XL Pipeline and capable of receiving crude oil delivered by the Keystone XL Pipeline, and the capacity of such attached infrastructure to accept delivery of crude oil from the Keystone XL Pipeline.

OBJECTION: The identity of Keystone's shippers has substantial commercial and proprietary value, is subject to substantial efforts by Keystone to protect it from actual and potential competitors, and is required to be maintained on a confidential basis pursuant to the terms of the contracts between Keystone and its shippers. Moreover, the request is irrelevant and not likely to lead to the discovery of admissible evidence.

INTERROGATORY NO. 71: With regard to Condition Paragraphs 8, 34, 35, and 39, for the Keystone XL Pipeline provide an approximate elevation profile (elevation versus pipeline milepost) of the proposed pipeline capturing the segments from the nearest upstream pump

station west of the South Dakota state border to the nearest pump station south of the South Dakota state border.

OBJECTION: This request seeks information that is confidential for security reasons. The elevation profile for the pipeline is also not relevant or likely to lead to the discovery of admissible evidence.

INTERROGATORY NO. 72: With regard to Condition Paragraphs 8, 34, 35, and 39, on the elevation profile provided in response to Interrogatory No. 71, indicate the milepost locations for each pump station and each mainline valve that TransCanada proposes to include in the Keystone XL Pipeline, and for each mainline valve location state the type of mainline valve actuation (i.e. manual, automatic, or remotely operated).

OBJECTION AND ANSWER: This request seeks information that is confidential for security reasons. The milepost locations for each pump station and mainline valve are not relevant or likely to lead to the discovery of admissible evidence. Without waiving the objection, each mainline valve located in South Dakota will be remotely operated.

INTERROGATORY NO. 73: With regard to Condition Paragraphs 8, 34, 35, and 39, for the Keystone XL Pipeline provide the maximum design flow rate and indicate the suction and discharge pressures at each pump station indicated on the elevation profile provided in response to Interrogatory No. 71.

OBJECTION AND ANSWER: The request for an elevation profile seeks information that is confidential for security reasons. Without waiving the objection, the

maximum capacity of the pipeline is 830,000 bpd with a minimum suction pressure at the pump stations of 50 psig and a maximum discharge pressure of 1,307 psig.

INTERROGATORY NO. 74: With regard to Condition Paragraphs 8, 34, 35, and 39, on the elevation profile provided in response to Interrogatory No. 71 indicate the maximum operating pressure ("MOP") for the pipeline segments.

OBJECTION AND ANSWER: The request for an elevation profile seeks information that is confidential for security reasons. Without waiving the objection, in accordance with 49 CFR 195, Design Pressure, the mainline MOP will be 1,307 psig and at select locations downstream of pump stations, the MOP is 1,600 psig.

INTERROGATORY NO. 75: With regard to Condition Paragraphs 8, 34, 35, and 39, for the pipeline segments shown on the elevation profile provided in response to Interrogatory No. 71, describe the main equipment that comprises the Keystone XL Pipeline in these segments and the location of such equipment.

ANSWER: Please refer to the FSEIS 2.1 Overview of the Proposed Project, section 2.1.4, Aboveground Facilities.

INTERROGATORY NO. 76: With regard to Condition Paragraphs 8, 34, 35, and 39, for the pipeline segments shown on the elevation profile provided in response to Interrogatory No. 71, describe TransCanada's approach to remote determination of possible pipeline releases.

OBJECTION AND ANSWER: The request for an elevation profile seeks information that is confidential for security reasons. Without waiving the objection,

TransCanada will utilize a state of the art Computational Pipeline Monitoring (CPM) leak detection system capable of identifying leaks down to the size of 1.5 to 2.0% of pipeline flow rate within a 2-hour window.

The Keystone pipeline will be monitored 24/7 by a dedicated Leak Detection controller within the Oil Control Center who is trained to identify and to respond to emerging events.

INTERROGATORY NO. 77: With regard to Fact Paragraph 50 and Condition Paragraphs 8, 34, 35, and 39, on the pipeline elevation profile provided in response to Interrogatory No. 71, indicate the approximate location of high consequence areas.

OBJECTION: The identity and location of High Consequence Areas is confidential and Keystone is required by PHMSA to keep this information confidential.

INTERROGATORY NO. 78: With regard to Condition Paragraphs 8, 34, 35, and 39, state whether or not TransCanada intends to operate the Keystone XL Pipeline in slack line (not liquid full) condition. If TransCanada does not intend to operate the Keystone XL Pipeline in slack line condition, provide a description of how TransCanada will design and control the pipeline to maintain non slack line condition.

ANSWER: TransCanada will not operate the line in slack conditions. Automated controls are in place to maintain minimum line pressures during operation.

INTERROGATORY NO. 79: With regard to Condition Paragraphs 8, 34, 35, and 39, provide an estimated range of the peak number of spill response workers that would be required to respond to a worst case discharge in South Dakota.

ANSWER: Please refer to the FSEIS Appendix I Spill Prevention Control and Countermeasure Plan and Emergency Response Plan; Emergency Response Plan Section 4. The number of positions/personnel required would depend on the size and complexity of the incident. INTERROGATORY NO. 80: With regard to Fact Paragraph 18, describe the chemical composition and specifications for the fusion bonded epoxy ("FBE") coating applied to pipe segments to be used to construct the Keystone XL Pipeline in South Dakota.

ANSWER: The following is the chemical composition for the fusion bond epoxy:

BISPHENOL A DIGLYCIDYL ETHER-BISPHENOL A COPOLYMER, CALCIUM

SILICATE, 4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER, EPOXY

RESIN-AMINE CONDENSATE, PIGMENT ADDITIVE, DICYANDIAMIDE, TITANIUM

DIOXIDE, 4,4'-ISOPROPYLIDENEDIPHENOL, QUARTZ SILICA.

The specifications for fusion bond epoxy follow the manufacturer recommendations and industry standards.

INTERROGATORY NO. 81: With regard to Condition Paragraph 10, identify all persons, other than TransCanada or its employees or contractors, who provided notice to TransCanada of a spill from Base Keystone Pipeline.

ANSWER: The source of notification for each of the spills from the Base Keystone Pipeline is the Operations Control Center (OCC) or field based TransCanada operations personnel.

INTERROGATORY NO. 82: With regard to Fact Paragraphs 107 and 108, provide the amount of each annual tax payment made by TransCanada from 2009 to 2013 separately for each county crossed by the Base Keystone Pipeline that together total the \$14,122,951 figure provided in response to Bold Nebraska Interrogatory 59.

ANSWER: See documents attached as Keystone 0768-0773.

Dated this 10 day of March, 2015.

TRANSCANADA KEYSTONE PIPELINE, LP by its agent, TC Oil Pipeline Operations, Inc.

Ву

Joseph Brown

Its Director, Authorized Signatory

Subscribed and sworn to before me

this O day of March, 2015.

John W. Love, Lawyer Notary Public – Canada

REQUESTS FOR PRODUCTION OF DOCUMENTS

REQUEST NO. 19: Provide a copy of each document furnished by TransCanada to each fact witness for the purposes of his or her testimony.

RESPONSE: TransCanada has not provided any documents to its fact witnesses for the purpose of providing testimony in this case. Keystone will identify its hearing exhibits as required by order of the Commission.

REQUEST NO. 20: With regard to Fact Paragraphs 14, 24, and 27, produce all documents exchanged between TransCanada and each person that has communicated an intention to TransCanada to construct infrastructure that would physically connect to and deliver crude oil into the Keystone XL Pipeline in Montana.

OBJECTION: The identity of Keystone's shippers has substantial commercial and proprietary value, is subject to substantial efforts by Keystone to protect it from actual and potential competitors, and is required to be maintained on a confidential basis pursuant to the terms of the contracts between Keystone and its shippers. Moreover, the request is irrelevant and not likely to lead to the discovery of admissible evidence.

REQUEST NO. 21: With regard to Fact Paragraphs 14, 24, 26, and 27, produce the Canadian Association of Petroleum Producers ("CAPP") 2015 supply forecast update released on or about January 21, 2015, all documents from CAPP describing such update, and all TransCanada documents that discuss such update.

OBJECTION AND RESPONSE: This request for all TransCanada documents discussing the forecast update is overlybroad and unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Without waiving the objection, the January 2015 Capital Investment & Drilling Forecast Update and the Short-term 2015/2016 Western Canadian Crude Oil Forecast Update are attached as Keystone 1637-1645.

OBJECTIONS

The objections stated to Bold Nebraska's Interrogatories and Request for Production of Documents were made by James E. Moore, one of the attorneys for Applicant TransCanada herein, for the reasons and upon the grounds stated therein.

Dated this 10th day of March, 2015.

WOODS, FULLER, SHULTZ & SMITH P.C.

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CERTIFICATE OF SERVICE

I hereby certify that on the 10th day of March, 2015, I sent by e-mail transmission, a true and correct copy of Keystone's Responses to Bold Nebraska's Second Interrogatories and Request for Production of Documents, to the following:

Paul C. Blackburn PO Box 17234 Minneapolis, MN 55407 paul@paulblackburn.net

One of the attorneys for TransCanada