OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY)	
TRANSCANADA KEYSTONE PIPELINE, LP)	FINAL DECISION AND
FOR A PERMIT UNDER THE SOUTH DAKOTA)	ORDER; NOTICE OF ENTRY
ENERGY CONVERSION AND TRANSMISSION)	
FACILITIES ACT TO CONSTRUCT THE)	HP09-001
KEYSTONE PIPELINE PROJECT)	

PROCEDURAL HISTORY

On March 12, 2009, TransCanada Keystone Pipeline, LP, (Keystone) filed a siting permit application for the South Dakota portion of the proposed Keystone XL Project (Project). The Project will transport crude oil starting in Hardisty, Alberta, Canada and ending in Port Arthur and East Houston areas of Texas. The proposed 36 inch diameter pipeline will have an initial nominal capacity of 700,000 barrels of oil per day. The proposed route will enter South Dakota at the Montana/South Dakota border in Harding County. It will extend in a southeasterly direction through portions of Harding, Butte, Perkins, Meade, Pennington, Haakon, Jones, Lyman, and Tripp counties. It will exit the state at the South Dakota/Nebraska border in Tripp County. The length of pipeline through South Dakota is approximately 313 miles. The Project also includes seven pump stations in South Dakota located in Harding (2), Meade, Haakon, Jones, and Tripp (2) counties along with 16 mainline valves. Mainline valves are proposed at each pump station and along the right-of-way with spacing intervals based upon the location of the pump stations, water bodies greater than 100 feet in width, high consequence areas and other considerations.

On April 6, 2009, the Commission issued its Notice of Application; Order for and Notice of Public Input Hearings; and Notice of Opportunity to Apply for Party Status in this docket. The notice provided that pursuant to SDCL 49-41 B-17 and ARSD 20:1 0:22:40, each municipality, county, and governmental agency in the area where the facility is proposed to be sited; any non-profit organization, formed in whole or in part to promote conservation or natural beauty, to protect the environment, personal health or other biological values, to preserve historical sites, to promote consumer interests, to represent commercial and industrial groups, or to promote the orderly development of the area in which the facility is to be sited; or any interested person, may be granted party status in this proceeding by making written application to the Commission on or before May 11, 2009.

Pursuant to SDCL 49-41 B-15 and 49-41 B-16, and its Notice of Application; Order for and Notice of Public Hearings and Notice of Opportunity to Apply for Party Status, the Commission held public hearings on Keystone's application at the following times and places:

Monday, April 27, 2009: 12:00 noon CDT at Winner Community Playhouse, 7" and Leahy Boulevard, Winner, SD

Monday, April 27, 2009: 7:00 p.m. MDT at Fine Arts School, 330 Scottie Avenue, Philip, SD

Tuesday, April 28, 2009: 6:00 p.m. MDT at Harding County Recreation Center, 204 Hodge Street, Buffalo, SD.

The purpose of the public input hearings was to hear public comment regarding Keystone's application. At the public input hearings, Keystone presented a brief description of the project, following which interested persons appeared and presented their views, comments and questions regarding the application.

At its regularly scheduled meeting of May 19, 2009, the Commission considered the Applications for Party Status received from numerous parties through the intervention deadline of May 11, 2009. The Commission found, pursuant to ARSD 20:10:22:40 that good cause existed to allow intervention for all Applications for Party Status received through the intervention deadline and the Commission voted unanimously to grant party status to Jasper, Seamans, D. Iversen, Colome, G. Iversen, Limpert, Harter, Vig, TCWUD, DRA, David Niemi, Debra Niemi and Lyman. The Commission also voted to deny the Motion for Extension of Time to File Application for Party Status, and in the alternative, the Commission extended the intervention deadline to May 31, 2009.

Ruth M. Iversen (Iversen) and Martin R. Lueck (Lueck) filed Applications for Party Status on May 29, 2009. At its regularly scheduled meeting of June 9, 2009, the Commission considered the Motion to Establish a Procedural Schedule and the Applications for Party Status. The Commission voted unanimously to grant the Motion to Establish a Procedural Schedule. Further, the Commission found, pursuant to ARSD 20:10:22:40 that good cause existed to allow intervention and the Commission voted unanimously to grant intervention to Iversen and Lueck.

In accordance with the scheduling and procedural orders in this case, Applicant, Staff and certain Intervenors filed pre-filed testimony. The formal evidentiary hearing was held as scheduled

on November 2, 3 and 4, 2009 in Room 414, State Capitol, Pierre, South Dakota and an additional Public Input Hearing was held on November 3, 2009, in Room 414, State Capitol, Pierre, South Dakota, at 6:00 p.m.

On December 31, 2009, the Commission established the following briefing schedule: (i) initial briefs and proposed findings of fact and conclusions of law from all parties wishing to submit them due by January 20, 2010; and (ii) reply briefs and objections and revisions to proposed findings of fact and conclusions of law due from all parties wishing to submit them on or before February 2, 2010.

On January 20, 2010, initial briefs were filed by the Applicant and Staff. Proposed findings of fact and conclusions of law were filed and served by Applicant, on January 20, 2010, On February 2, 2010, reply briefs were filed and served by Applicant and Staff.

On February, _____, 2010, at its regular meeting, the Commission voted unanimously to approve conditions to which a permit to construct the Project would be subject, if granted, and to grant a permit to Keystone to construct the Project, subject to the approved conditions.

Having considered the evidence of record, applicable law and the arguments of the parties, the Commission makes the following Findings of Fact, Conclusions of Law and Decision:

FINDINGS OF FACT

Parties

- 1. The Applicant is TransCanada Keystone Pipeline, LP, a Delaware Limited Partnership registered to do business in South Dakota. Ex TC-1 Application pp. 1, 4. As of the hearing dates, Keystone was an indirect, wholly-owned subsidiary of TransCanada Corporation ("TransCanada").
- 2. On May 19, 2009, the Commission unanimously voted to grant party status to all persons that had requested party status prior to the commencement of the meeting. On June 9, 2009, the Commission unanimously voted to grant party status to all persons that had requested party status through the intervention deadline of May 31, 2009. 15 persons intervened, including: Jasper, Seamans, D. Iversen, City of Colome, G. Iversen, Limpert, Harter, Vig, TCWUD,

¹The Commission's Orders in the case and all other filings and documents in the record are available on the Commission's web page for Docket HP09-001 at: http://puc.sd.gov/dockets/hydrocarbonpipeline/2009/hp0-001.aspx

DRA, David Niemi, Debra Niemi and Lyman. Minutes of May 19, 2009 and June 9, 2009 Commission Meetings; Applications for Party Status.

3. The Commission's staff ("Staff") also participated in the case as a full party.

Procedural Findings

- 4. The application was signed on behalf of the Applicant on February 26, 2009, in Calgary, Alberta, Canada, and was filed with the Commission on March 12, 2009. Ex TC-1, 9.0, p. 116.
- 5. The Commission issued the following notices and orders in the case as described in greater detail in the Procedural History above, which is hereby incorporated by reference in these Findings of Fact and Conclusions of Law:
 - ORDER OF ASSESSMENT OF FILING FEE
 - NOTICE OF APPLICATION; ORDER FOR AND NOTICE OF PUBLIC INPUT HEARINGS; AND NOTICE OF OPPORTUNITY TO APPLY FOR PARTY STATUS
 - ORDER GRANTING PARTY STATUS; ORDER DENYING MOTION FOR EXTENSION OF TIME
 TO FILE APPLICATION FOR PARTY STATUS; ORDER EXTENDING INTERVENTION DEADLINE
 - ORDER GRANTING MOTION TO ESTABLISH PROCEDURAL SCHEDULE AND ORDER GRANTING PARTY STATUS
 - ORDER SETTING PROCEDURAL SCHEDULE
 - ORDER GRANTING MOTION FOR EXTENSION OF TIME TO SUBMIT TESTIMONY
 - ORDER GRANTING IN PART AND DENYING IN PART MOTION TO COMPEL DISCOVERY
 - ORDER AMENDING ORDER GRANTING IN PART AND DENYING IN PART MOTION TO COMPEL DISCOVERY
 - ORDER SETTING AMENDED PROCEDURAL SCHEDULE
 - ORDER FOR AND NOTICE OF HEARING
 - ORDER FOR AND NOTICE OF PUBLIC HEARING
 - AMENDED ORDER FOR AND NOTICE OF PUBLIC HEARING
 - ORDER ESTABLISHING BRIEFING SCHEDULE

AMENDED ORDER ESTABLISHING BRIEFING SCHEDULE

6. Pursuant to SDCL 49-41 B-15 and 49-41 B-16, and its Notice of Application; Order for and Notice of Public Hearings and Notice of Opportunity to Apply for Party Status, the Commission held public hearings on Keystone's application at the following times and places:

Monday, April 27, 2009: 12:00 noon CDT at Winner Community Playhouse, 7'" and Leahy Boulevard, Winner, SD

Monday, April 27, 2009: 7:00 p.m. MDT at Fine Arts School, 330 Scottie Avenue, Philip, SD

Tuesday, April 28, 2009: 6:00 p.m. MDT at Harding County Recreation Center, 204 Hodge Street, Buffalo, SD.

- 7. The purpose of the public hearings was to afford an opportunity for interested persons to present their views and comments to the Commission concerning the Application. At the hearings, Keystone presented a brief description of the project after which interested persons presented their views, comments and questions regarding the application. Public Hearing Transcripts.
- 8. The following testimony was prefiled in advance of the formal evidentiary hearing held November 2, 3 and 4, in Room 414, State Capitol, Pierre, South Dakota:
 - A. Applicant's March 12, 2009 Direct Testimony
 - Robert Jones
 - John Phillips
 - Richard Gale
 - Jon Schmidt
 - Meera Kothari
 - John Hayes
 - Donald Scott
 - Heidi Tillquist
 - Tom Oster
 - B. Supplemental Direct Testimony of August 31, 2009
 - John Phillips

- C. Intervenors' Direct Testimony of September 11, 2009
 - David Niemi
 - Debra Niemi
- D. Staff's September 25, 2009 Direct Testimony
 - Kim McIntosh
 - Brian Walsh
 - Derric Iles
 - Tom Kirschenmann
 - Paige Hoskinson Olson
 - Michael Kenyon
 - Ross Hargove
 - Patrick Robblee
 - James Arndt
 - William Walsh
 - Jenny Hudson
 - David Schramm
 - William Mampre
 - Michael K. Madden
 - Tim Binder
- E. Applicant's Updated Direct and Rebuttal Testimony
 - Robert Jones Updated Direct (10/23/09)
 - Jon Schmidt Updated Direct and Rebuttal (10/19/09)
 - Meera Kothari Updated Direct and Rebuttal (10/19/09)
 - Donald M. Scott Updated Direct (10/19/09)
 - John W. Hayes Updated Direct (10/19/09)
 - Heidi Tillquist Updated Direct (10/20/09)
 - Steve Hicks Direct and Rebuttal (10/19/09)
- F. Staff's Supplemental Testimony of October 29, 2009
 - William Walsh
 - William Mampre
 - Ross Hargrove

9. As provided for in the Commission's October 21, 2009 Amended Order for and Notice of Public Hearing, the Commission held a public input hearing in Room 414 of the State Capitol beginning at 6:00 p.m. on November 3, 2009, at which eleven members of the public presented comments. Transcript of November 3, 2009 Public Input Hearing.

Applicable Statutes and Regulations

- 10. The following South Dakota statutes are applicable: SDCL 49-41B-1 through 49-41B-2.1, 49-41B-4, 49-41B-11 through 49-41B-19, 49-41B-21, 49-41B-22, 49-41B-24, 49-41B-26 through 49-41B-38 and applicable provisions of SDCL Chs. 1-26 and 15-6.
- 11. The following South Dakota administrative rules are applicable: ARSD Chapter 20:10:01 and ARSD 20:10:22:01 through ARSD 20:10:22:25, ARSD 20:10:22:36 through ARSD 20:10:22:40.
- 12. Pursuant to SDCL 49-41B-22, the Applicant for a facility construction permit has the burden of proof to establish that:
 - (1) The proposed facility will comply with all applicable laws and rules;
 - (2) The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area;
 - (3) The facility will not substantially impair the health, safety or welfare of the inhabitants; and
 - (4) The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government.

The Project

- 13. The Project will be owned, managed and operated by the Applicant, TransCanada Keystone Pipeline, LP. Ex TC-1, 1.5 and 1.7, p. 4.
- 14. The purpose of the Project is to transport incremental crude oil production from the Western Canadian Sedimentary Basin ("WCSB") to meet growing demand by refineries and markets in the United States (U.S.). This supply will serve to replace U.S. reliance on less stable and less reliable sources of offshore crude oil. Ex TC-1, 1.1, p. 1; Ex TC-1, 3 p. 23.

- 15. The Project would commence at the crude oil supply hub near Hardisty, Alberta, Canada, and extend to Steele City, Nebraska. Initially, the pipeline would have a nominal capacity to transport 700,000 barrels per day ("bpd"). Ex TC-1, 2.1.2, p. 8. Keystone could add additional pumping capacity to expand the nominal capacity to 900,000 bpd. *Id*.
- 16. The Project is an approximately 1,707 mile pipeline with about 1,380, miles in the United States. Ex TC-1, 1.2, p. 1. The South Dakota portion of the pipeline will be approximately 314 miles in length and will extend from the Montana border in Harding County to the Nebraska border in Tripp County. *Id.* 2.1.1. The Project is proposed to cross the South Dakota counties of Harding, Butte, Perkins, Meade, Pennington, Haakon, Jones, Lyman and Tripp. Ex TC-1, 1.2 and 2.1.1, pp. 1 and 8. Detailed route maps are presented in TC-1, Ex A, Ex C.
- 17. Construction of the Project is proposed to commence in 2011 and be completed in 2012. Construction in South Dakota will be conducted in five spreads, generally proceeding in a north to south direction. The Applicant expects to place the Project in service in 2012. Tr. at 187, 583. This in-service date is consistent with the requirements of the Applicant's shippers who have made the contractual commitments that underpin the viability and need for the project. TC-1, 1.4, p. 1-2.
- 18. The pipeline in South Dakota will extend from milepost 282.5 to milepost 597, approximately 314 miles. The pipeline will have a 36-inch nominal diameter and be constructed using API 5L X70 or X80 high-strength steel. An external fusion bonded epoxy ("FBE") coating will be applied to the pipeline and all buried facilities to protect against corrosion. Cathodic protection will be provided by impressed current. The pipeline will have batching capabilities and will be able to transport products ranging from light crude oil to heavy crude oil. TC-1, 2.2,2.2.1, pp. 8-9.
- 19. The pipeline will operate at a maximum operating pressure of 1,440 psi. Ex TC-1, 2.2.1, p. 9. For location specific low elevation segments close to the discharge of pump stations, the maximum operating pressure will be 1,600 psi. Ex TC-1, 2.2.1, p. 9.
- 20. The Project will have seven pump stations in South Dakota, located in Harding (2), Meade, Haakon, Jones and Tripp (2) Counties. The pump stations will be electrically driven and will be required to pump the crude oil through the pipeline. Pump units will be installed to meet the nominal design flow rate of 700,000 bpd. Ex TC-1, 2.1.2. Sixteen mainline valves will be located in South Dakota. Seven of these valves will be remotely controlled, in order to have the capability to isolate sections of line rapidly in the event of an emergency to minimize impacts or for operational or maintenance reasons. Ex TC-1, 2.2.2, 2.2.3, pp. 10-11.

- 21. The pipeline will be constructed within a 110-foot wide corridor, consisting of a temporary 60-foot wide construction right-of-way and a 50-foot permanent right-of-way. Additional workspace will be required for stream, road, and railroad crossings, as well as hilly terrain and other features. The Applicant has committed to reducing the construction right-of-way to 85 feet in certain wetlands to minimize impacts. Ex TC-1, 2.2.4, p. 11; Ex TC-7, ¶ 20.
- 22. The Project will be designed, constructed, tested, and operated in accordance with all applicable requirements, including the U.S. Department of Transportation, Pipeline Hazardous Materials and Safety Administration (PHMSA) regulations set forth at 49 CFR Part 195, as modified by the Special Permit requested the Project from PHMSA. These federal regulations are intended to ensure adequate protection for the public and the environment and to prevent crude oil pipeline accidents and failures. Ex TC-1, 2.2, p. 8.
- 23. The current estimated cost of the Keystone XL Project in South Dakota is 921.4 million. Ex TC-1, 1.3, p. 1.

Demand for the Facility

- 24. The transport of additional crude oil production from the WCSB is necessary to meet growing demand by refineries and markets in the U.S. The need for the project is dictated by a number of factors, including increasing WCSB crude oil supply combined with insufficient export pipeline capacity; increasing crude oil demand in the U.S. and decreasing domestic crude supply; the opportunity to reduce U.S. dependence on foreign off-shore oil through increased access to stable, secure Canadian crude oil supplies; and binding shipper commitments to utilize the Keystone Pipeline Project. Ex TC-1, 3.0, p. 23.
- 25. According to the U.S. Energy Information Administration ("EIA"), U.S. demand for petroleum products has increased by over 11 percent or 2,000,000 bpd over the past 10 years and is expected to increase further. The EIA estimates that total U.S. petroleum consumption will increase by approximately 10 million bpd over the next 10 years, representing average demand growth of about 100,000 bpd per year (EIA Annual Energy Outlook 2008). Ex TC-1, 3.2, pp. 23-24.
- 26. At the same time, domestic U.S. crude oil supplies continue to decline. For example, over the past 10 years, domestic crude production in the United States has declined with an average rate of about 135,000 per day per year, or 2% per year. Ex TC-1, 3.3, p. 24.

- 27. Keystone will provide a number of opportunities for refiners in the U.S. to utilize Canadian crude oil. Keystone's incremental pipeline capacity will provide the U.S. access to secure and growing Canadian crude oil supplies. Access to incremental Canadian crude supply also will provide an opportunity for the U.S. to offset declines in domestic crude oil production and decrease its dependence on foreign crude supplies from Mexico, and Venezuela. Ex TC-1, 3.4, p. 24.
- 28. Reliable and safe transportation of crude oil will help ensure that U.S. energy needs are not subject to unstable political events. Established crude oil reserves in the WCSB are estimated at 179 billion barrels (CAPP 2008). Over 97 percent of WCSB crude oil supply is sourced from Canada's vast oil sands reserves located in northern Alberta. The Alberta Energy and Utilities Board estimates there are 175 billion barrels of established reserves recoverable from Canada's oil sands. Alberta has the second largest crude oil reserves in the world, second only to Saudi Arabia. Ex TC-1, 3.1, p. 23.
- 29. Shippers have already committed to long-term binding contracts, enabling Keystone to proceed with regulatory applications and construction of the pipeline once all regulatory, environmental, and other approvals are received. These long-term binding shipper commitments demonstrate a material endorsement of support for the Project, its economics, proposed route, and target market, as well as the need for additional pipeline capacity and access to Canadian crude supplies. Ex TC1, 3.5, p. 24.

Environmental

- 30. In order to construct the Project, Keystone is required to obtain a Presidential Permit from the U.S. Department of State ("Department of State") authorizing the construction of facilities across the international border. Ex TC-1, 1.8, pp. 4-5; 5.1, p. 30.
- 31. Because Keystone is required to obtain a Presidential Permit from the Department of State, the National Environmental Policy Act ("NEPA") requires the Department of State to prepare an Environmental Impact Statement ("EIS"). Ex TC-15. In support of its Presidential Permit Application, Keystone has submitted studies and other environmental information to the Department of State. Ex TC-1, 1.8, p. 5; 5.1, p. 30.
- 32. In Table 6 to the Application, the Applicant summarizes the environmental impacts that its analysis indicates could be expected to remain after its Construction Mitigation and Reclamation Plan is implemented. Ex TC-1, pp. 31-37.

- 33. Exhibit A to the Application includes soil type maps and aerial photograph maps of the Keystone pipeline route in South Dakota that indicate topography, land uses, project mileposts and Section, Township, Range location descriptors. Ex TC-1A.
- 34. Keystone has hired contractors to conduct paleontological surveys on federal and state land pursuant to Bureau of Land Management guidelines and to work with the BLM and South Dakota Museum of Geology to look for paleontological resources. Tr. at 47-48. The results have been provided to the Department of State, which will work with the SHPO to determine which surveyed sites are eligible for treatment under the NHPA. (*Id.*)
- 35. Surveys to date have found three significant fossil localities on state and federal lands in South Dakota. During recent survey work in Harding County, six significant fossil localities were identified in the proposed right of way, with one additional significant fossil locality identified along a proposed access road. TC-4, \P 16.
- 36. Keystone will mark on construction alignment drawings any areas thought likely to contain significant paleontological resources on state and federal land, and a paleontological monitor would be assigned to those areas during construction. For state or federal lands, Keystone will prepare a plan to be approved by the State addressing both how construction will be monitored and the disposition of any significant finds. Tr. at 55.
- 37. If Keystone construction activities strike funerary objects or paleontological resources, work will immediately be shut down and Keystone will not work within one hundred feet of that site. Keystone will notify the landowner and any proper authorities within a given time frame. Keystone will not work in that area until released to go back to work. Tr. at 40.
- 38. On private lands, Keystone will have paleontological monitors in areas with significant resources. The Paleontologist will work with Geologists to identify formations that may be exposed or near the surface. A person trained in Paleontology would be assigned to those sections of the pipeline when construction proceeds to grading and construction. The landowner has the right to the fossils. Tr. at 54-55.
- 39. If previously undocumented cultural sites are discovered within the construction corridor during construction activities, all work that might adversely affect the discovery will cease until Keystone, in consultation with the appropriate agencies such as SHPO, can evaluate the site's eligibility and the probable effects. If a previously unidentified site is recommended as eligible to the National Registry of Historic Places, impacts will be mitigated pursuant to the Unanticipated Discovery Plan submitted to the SHPO. Treatment of any discovered human remains, funerary objects, or items of cultural patrimony found on federal land will be handled in accordance with the Native American Grave Protection and Repatriation Act. Construction will not resume in the

area of the discovery until the authorized agency has issued a notice to proceed. If human remains and associated funerary objects are discovered on state or private land during construction activities, construction will cease within the vicinity of the discovery and the county coroner or sheriff will be notified of the find. Treatment of any discovered human remains and associated funerary objects found on state or private land will be handled in accordance with the provisions of applicable state laws. Ex TC-4, \P 35. In accordance with this commitment, the Commission finds that Condition 50 should be adopted.

- 40. The surficial geologic deposits along the proposed route are primarily composed of Quaternary alluvium, colluvium, alluvial terraces, and eolian deposits (sand dunes). The alluvium primarily occurs in modern stream channels and floodplains, but also is present in older river terraces. Ex TC-1, 5.3.2, p. 37.
- 41. Sand, gravel, crushed stone, oil, natural gas, coal and metallic ore resources are mineral resources existing along the proposed route. The route passes through the Buffalo Field in Harding County. Construction will have very minor and short-term impact on current mineral extraction activities due to the temporary and localized nature of pipeline construction activities. Several oil and gas wells were identified within or close to the Project construction ROW. Prior to construction, Keystone will identify the exact locations of active, shut-in, and abandoned wells and any associated underground pipelines in the construction ROW and take appropriate precautions to protect the integrity of such facilities. Ex TC-1, 5.3.3, pp. 38-39.
- 42. Soil maps for the route are provided in Exhibit A to TC-1. In the northwestern portions of South Dakota, the soils are shallow to very deep, generally well drained, and loamy or clayey. Soils such as the Assiniboine series formed in fluvial deposits that occur on fans, terraces, and till plains. Soils such as the Cabbart, Delridge, and Blackhall series formed in residuum on hills and plains. Fertile soils and smooth topography dominate Meade County. The soils generally are shallow to very deep, somewhat excessively drained to moderately well drained, and loamy or clayey. Cretaceous Pierre Shale underlies almost all of Haakon, Jones, and portions of Tripp counties. This shale weathers to smectitic clays. These clays shrink as they dry and swell as they get wet, causing significant problems for road and structural foundations. From central Tripp County to the Nebraska state line, soils typically are derived from shale and clays on the flatter to moderately sloping, eroded tablelands. Ex TC-1, 5.3.4, p. 40.
- 43. Grading and excavating for the proposed pipeline and ancillary facilities will disturb a variety of agricultural, rangeland, wetland and forestland soils. Prime farmland soils may be altered temporarily following construction due to short-term impact such as soil compaction from equipment traffic, excavation and handling. However, potential impacts to soils will be minimized or mitigated by the soil protection measures identified in the Construction Mitigation and Reclamation Plan (CMR Plan) to the extent such measures are fully implemented. The measures include procedures for segregating and replacing top soil, trench backfilling, relieving areas

compacted by heavy equipment, removing surface rock fragments and implementing water and wind erosion control practices. Ex TC-1, 5.3.4, p. 41; TC-1 Ex. B.

- 44. If hydrocarbon contaminated soils are encountered during trench excavation, the appropriate federal and state agencies will be contacted immediately. A remediation plan of action will be developed in consultation with that agency. Depending on the level of contamination found, affected soil may be replaced in the trench or removed to an approved landfill for disposal. Ex TC-1, 5.3.4, p. 42.
- 45. Fifteen perennial streams and rivers, 129 intermittent streams, 206 ephemeral streams and 7 man-made ponds will be crossed during construction of the Project in South Dakota. Keystone will directionally drill the Little Missouri, Cheyenne and White River crossings. Keystone intends to use open-cut trenching at the other perennial streams and intermittent water bodies. The open cut wet method can cause the following impacts: loss of in-stream habitat through direct disturbance, loss of bank cover, disruption of fish movement, direct disturbance to spawning, water quality effects and sedimentation effects. Alternative techniques include open cut dry flume, open cut dam-and-pump and horizontal directional drilling. Permitting of water body crossings, which is currently underway, will ultimately determine the construction method to be utilized. Keystone committed to mitigate water crossing impacts through implementation of procedures outlined in the CMR Plan. Ex TC-1, 5.4.1, pp. 45-46.
- 46. The pipeline will be buried at an adequate depth under channels, adjacent flood plains and flood protection levees to avoid pipe exposure caused by channel degradation and lateral scour. Determination of the pipeline burial depth will be based on site-specific channel and hydrologic investigations where deemed necessary. Ex TC-1, 5.4.1, p. 46.
- 47. Although improvements in pipeline safety have been made, the risk of a leak cannot be eliminated. Keystone's environmental consulting firm for the Project, AECOM, estimated the chances of and the environmental consequences of a leak or spill through a risk assessment. Ex TC-1, 6.5.2, pp. 96-102; Table 6; TC-12, ¶¶ 10, 24.
- 48. Keystone's expert estimated the chance of a leak from the Project to be not more than one spill in 7,400 years for any given mile of pipe. TC-12, \P 10; TC-1, 6.1.2.1, p. 87. The frequency calculation found the chance to be no more than one spill in 24 years in South Dakota. Tr. at 137; Ex TC-7D, p. 5.
- 49. Keystone's spill frequency and volume estimates are conservative by design, overestimating the risk since the intent is to use the assessment for planning purposes. The risk

assessment overestimates the probable size of a spill to ensure conservatism in emergency response and other planning objectives. If a spill were to occur on the Keystone pipeline, PHMSA data indicate that the spill is likely to be three barrels or less. Ex TC-12, \P 10; Tr. at 128-132; TC-1, 6.1.2.1, p. 87.

- 50. Because of their high solubility and their very low Maximum Contaminant Levels ("MCLs"), the constituents of primary concern in petroleum, including crude oil, are benzene, toluene, ethyl benzene and xylene. These constituents are commonly referred to as BTEX. Tr. at 142, 146. The crude oil to be shipped through the Project will be similar in composition to other crude oils produced throughout the world and currently shipped in the United States. Tr. at 155-56. The BTEX concentration in the crude oil to be shipped through the Project is close to 1 % to 1.5%. Tr. at 151.
- 51. The Pipeline corridor will pass through areas in Tripp County where shallow and surficial aquifers exist. Since the pipeline will be buried at a shallow depth, it is unlikely that the construction or operation of the pipeline will alter the yield from any aquifers that are used for drinking water purposes. Keystone will investigate shallow groundwater when it is encountered during construction to determine if there are any nearby livestock or domestic wells that might be affected by construction activities. Appropriate measures will be implemented to prevent groundwater contamination and steps will be taken to manage the flow of any ground water encountered. Ex TC-1, 5.4.2, pp. 47-48. The Tripp County Water User District is up gradient of the pipeline and therefore would not be affected by a spill. Tr. at 441, 449-50.
- 52. The risk of a spill affecting public or private water wells is low because the components of crude oil are unlikely to travel more than 300 feet from the spill site. Tr. at 142-43. There are no private or public wells within 200 or 400 feet, respectively, of the right of way. TC-16, Data Response 3-46.
- 53. The total length of pipe with the potential to affect an HCA is 34.3 miles. TC-12 \P 24. A spill that could affect an HCA would occur no more than once in 250 years. (*Id.*)
- 54. In the event that soils and groundwater contaminated by a petroleum release, Keystone would work with state agency personnel to determine what type of remediation process would be appropriate. Tr. at 148. Effective emergency response can reduce the likelihood and severity of contamination. TC-12, ¶¶ 10, 14, 24. The experience of DENR is that pipeline facilities respond immediately to the incident in every case. Tr. at 502.

- 55. The Commission finds the risk of a spill to be extremely low, and finds that the risk that a spill could impact a water supply is extremely low and the Applicant can and will mitigate the effects of either.
- 56. Of the approximately 314-mile route in South Dakota, all but 21.5 miles is privately owned. 21.5 miles is state-owned and managed. The list is found in Table 14. No tribal or federal lands are crossed by the proposed route. Ex TC-1, 5.7.1, p. 75.
- 57. Table 15 of the Application identifies the land uses affected by the pipeline corridor. Among other things, it shows that the project will not cross or be co-located with any major industrial sites, the pipeline will not cross active farmsteads, but may cross near them and the pipeline will not cross suburban and urban residential areas. The project will not cross municipal water supplies or whater sources for organized rural water districts. Ex TC-1, 5.7.1, pp. 76-78.
- 58. The pipeline will be compatible with the predominant land use, which is rural agriculture, because the pipeline will be buried to a depth of four feet in fields and will interfere only minimally with normal agricultural operations. In most locations, the pipeline will be placed below agricultural drain tiles, and drain tiles that are damaged will be repaired. The only aboveground facilities will be pump stations and block valves located at intervals along the pipeline. Ex TC-1, 5.7.3, pp.78-79.
- 59. The Project's high strength X70 steel will have a puncture resistance of 51 tons of digging force. Ex TC-8, \P 28. Keystone will have a public awareness program in place and an informational number to call where landowners and others can obtain information concerning activities of concern. TC-1, 6.3.4, pp. 93-94. The Commission finds that the risk of damage by ordinary farming operations is very low and that problems can be avoided through exercise of ordinary common sense.
- 60. The project has been subjected to exhaustive environmental review. Keystone included a preliminary Environmental Report with its Presidential Permit application submitted to the Department of State on September 19, 2008, and later filed a more comprehensive report on November 20, 2008, including field survey reports, and documentation of agency consultation regarding wetlands and cultural and biological resources. Ex. TC-1, ¶ 5.1, p. 30.
- 61. The Department of State is preparing an environmental impact statement pursuant to NEPA. The public comment period opened on January 28, 2009. When a draft EIS has been prepared, there will be a 45-day comment period. A draft EIS is expected in the first half of 2010. Tr. at 240, 241, 49-50.

- 62. Much of the habitat crossed by the proposed pipeline route is rangeland or pasture. The effects of long-term habitat loss on native populations will therefore be minor. Ex. TC-4, ¶ 25. Big and small game will temporarily move from the right of way during construction, but the majority of habitat will be restored to its previous cover and land use. *Id.* Construction impacts in these habitats will be short term and represent a small fraction of the total available habitat in the project area.
- 63. Surveys for sage and sharp-tailed grouse in 2009 found two leks within two miles of the right of way in Harding County on private property. Ex. TC-4, ¶ 25. Keystone also surveyed for protected species, including raptors and bald eagles, western prairie fringed orchid, and interior least tern. *Id.* ¶ 26. Keystone identified 28 raptor nests along the right of way in 2008 and 25 in 2009. No bald eagle nest or roost sites were identified within 0.25 miles of the right of way. *Id.* No western fringed prairie orchids or nesting terns were located. *Id.*
- 64. Impacts to aquatic species will be limited. Less than five miles of the route crosses wetlands or riverine habitats. Ex. TC-4, ¶ 27. The USFWS and SDGFP identified four sensitive aquatic species that potentially could be affected by the project. *Id.* One, the sturgeon chub, is located only on the Cheyenne and White rivers and impacts will be limited by directional drilling. *Id.* Surveys within tributaries of the Keya Paha River in 2009, as recommended by the agencies, did not find any of the other species of concern. *Id.*
- 65. Tom Kirschenmann, the chief of terretrial resources within the Division of Wildlife for SDGFP concluded that Keystone would mitigate the effect of the project on several sensitive areas or species, and that the effect of the project on wildlife habitat would be "very minimal." S-15 at 2-3; Tr. at 469-70.

Design and Construction

- 66. Keystone has applied for a special permit ("Special Permit") from PHMSA authorizing Keystone to design, construct, and operate the Project at up to 80% of the steel pipe specified minimum yield strength at most locations. TC-1, 2.2, p. 8; Tr. at 62.
- 67. TransCanada operates approximately 11,000 miles of pipelines in Canada with a 0.8 design factor and requested the Special Permit to ensure consistency across its system and to reduce costs. PHMSA has previously granted similar waivers adopting this modified design factor for natural gas pipelines and for the Keystone Pipeline. Ex TC-8, \P 13, \P 17.

- 68. Four categories are not covered under the Keystone Special Permit: (i) navigable waterways, (ii) population areas, (iii) highway, railroad and road crossings, and (iv) pump station valve assemblies and pigging and measurement facilities. These areas are excluded from the Special Permit's waiver primarily because of stress concerns during installation and particular stress or risk concerns with these areas. Ex TC-8, ¶ 16.
- 69. Application of the 0.8 design factor and API 5L PSL2 X70 high-strength steel pipe results in use of pipe with a 0.463 inch wall thickness, as compared with the 0.512 inch wall thickness under the otherwise applicable 0.72 design factor, a reduction in thickness of .050 inches. Tr. at 61. PHMSA previously found that the issuance of a waiver is not inconsistent with pipeline safety and that the waiver will provide a level of safety equal to or greater than that which would be provided if the pipeline were operated under the otherwise applicable regulations. Ex TC-8, ¶ 15.
- 70. In preparation for the Project, Keystone conducted a pipeline threat analysis, using the pipeline industry published list of threats under ASME B31.8S and PHMSA to determine threats to the pipeline. Identified threats were manufacturing defects, construction damage, corrosion, mechanical damage and hydraulic event. Safeguards were then developed to address these threats. Ex TC-8, \P 22.
- 71. Steel suppliers, mills and coating plants were pre-qualified using a formal qualification process consistent with ISO standards. The pipe is engineered with stringent chemistry to ensure weldability during construction. Each batch of pipe is mechanically tested to prove strength, fracture control and fracture propagation properties. The pipe is hydrostatically tested. The pipe seams are visually and manually inspected and also inspected using ultrasonic instruments. Each piece of pipe and joint is traceable to the steel supplier and pipe mill shift during production. The coating is inspected at the plant with stringent tolerances on roundness and nominal wall thickness. A formal quality surveillance program is in place at the steel mill and at the coating plant. Ex TC-8, ¶ 24; Tr. at 59-60.
- 72. All pipe welds will be examined around 100 percent of their circumferences using ultrasonic or radiographic inspection. The coating is inspected and repaired if required prior to lowering into the trench. After construction the pipeline is hydrostatically tested in the field to 125 percent of its maximum operating pressure, followed by caliper tool testing to check for dents and ovality. Ex TC-8, \P 25.
- 73. A fusion-bonded epoxy ("FBE") coating will be applied to the external surface of the pipe to prevent corrosion. Ex TC- 8, \P 26.

- 74. TransCanada has thousands of miles of this particular grade of pipeline steel installed and in operation. TransCanada pioneered the use of FBE, which has been in use on its system for over 29 years. There have been no leaks on this type of pipe installed by TransCanada with the FBE coating and cathodic protection system during that time. When TransCanada has excavated pipe to validate FBE coating performance, there has been no evidence of external corrosion. Ex TC-8, \P 27.
- 75. A cathodic protection system will be installed comprised of engineered metal anodes, which are connected to the pipeline. A low voltage direct current is applied to the pipeline, resulting in corrosion of the anodes rather than the pipeline. Ex TC-8, \P 27. FBE coating and cathodic protection mitigate external corrosion. Ex TC-8, \P 26.
- 76. A tariff specification of 0.5 percent solids and water by volume will be utilized to minimize the potential for internal corrosion. This specification is half the industry standard of one percent. Further, the pipeline is designed to operate in turbulent flow to minimize water drop out, another potential cause of internal corrosion. During operations, the pipeline is cleaned using inline inspection tools, which measure internal and external corrosion. Keystone will repair areas of pipeline corrosion as required by federal regulation. Ex TC-8, ¶ 26.
- 77. To minimize the risk of mechanical damage to the pipeline, it will be buried with a minimum of four feet of cover, one foot deeper than the industry standard, reducing the likelihood of mechanical damage. The steel specified for the pipeline is high-strength steel with engineered puncture resistance of approximately 51 tons of force. Ex TC-8, \P 28.
- 78. Hydraulic damage is caused by over-pressurization of the pipeline. The risk of hydraulic damage will be minimized through the SCADA system's continuous, real-time pressure monitoring systems and through operator training. Ex TC-8, \P 29.
- 79. The Applicant has prepared a detailed CMR Plan that describes procedures for crossing cultivated lands, grasslands, including native grasslands, wetlands, streams and the procedures for restoring or reclaiming and monitoring those features crossed by the Project. The CMR Plan is a summary of the commitments that Keystone has made for environmental mitigation, restoration and post-construction monitoring and compliance related to the construction phase of the Project. Among these, Keystone will utilize construction techniques that will retain the original characteristics of the lands crossed as detailed in the CMR Plan. Keystone's thorough implementation of these procedures will minimize the impacts associated with the Project. A copy

of the CMR Plan was filed as Exhibit B to Keystone's permit application and introduced into evidence as Exhibit B to TC-1.

- 80. The CMR Plan establishes procedures to address a multitude of construction-related issues, including but not limited to the following:
 - Training
 - Advance Notice of Access
 - Depth of Cover
 - Noise Control
 - Weed Control
 - Dust Control
 - Fire Prevention and Control
 - Spill Prevention and Containment
 - Irrigation Systems
 - Clearing
 - Grading
 - Topsoil Removal and Storage
 - Temporary Erosion and Sediment Control
 - Clean-Up
 - Reclamation and Revegetation
 - Compaction Relief
 - Rock Removal
 - Soil Additives
 - Seeding
 - Construction in Residential and Commercial/Industrial Areas
 - Drain Tile Damage Mitigation and Repair

Ex TC-1 Ex B.

- 81. Keystone's CMR Plan includes many mitigation steps designed to return the land to its original production. These include topsoil removal and replacement, compaction of the trench line, decompaction of the working area, and tilling the topsoil after replacement. Ex TC-1, Ex. B; Ex TC-6, \P 27; Ex TC-1, 6.1.2.2, pp. 87-88.
- 82. Keystone is in the process of preparing, in consultation with the area National Resource Conservation Service, construction/reclamation unit mapping to address differing construction and reclamation techniques for different soils conditions, slopes, vegetation, and

land use known along the pipeline route. This mapping results in the identification of segments called con/rec units. Ex. TC-5; TC-161, Data Response 3-25.

- 83. Staff witness James Arndt requested a condition that Keystone provide to the Commission its con/rec unit mapping and corresponding pipeline mile post references prior to construction, and prepare the classification system and consultation with area NRCS staff. Tr. at 275, 319.
- 84. Dr. Arndt also recommended a triple lift whereby the topsoil is stripped and, at certain locations, where poor-quality subsoils underlie much better quality subsoils, those soil horizons are segregated separately. Tr. at 276-77. Arndt also proposed that Keystone use a multifunction probe to determine the presence of paralythic shale, salinity and various subsoil layers and other characteristics. Tr. at 277-78. Dr. Arndt acknowledged that this procedure would require additional work space, and so would involve "tradeoffs that have to be assessed for a given particular area." Tr. at 287.
- 85. Keystone prefers the "ability to use multiple tools, not just one particular technology," Tr. at 595-96, and to work with the NRCS and landowners to develop multiple methods to address problematic soils. *Id.* at 594-95.
- 86. Keystone will build two all-inclusive construction camps, including living quarters, for the project. The construction camps will be located near Union Center and Winner, respectively. Tr. at 27.
- 87. The Applicant will use special construction methods and measures to minimize and mitigate impacts where warranted by site specific conditions. These special techniques will be used when constructing across paved roads, primary gravel roads, highways, railroads, water bodies, wetlands, sand hills areas, and steep terrain. These special techniques are described in the Application. Ex TC-1, 2.2.6, p. 17; TC-6, \P 11.
- 88. Of the perennial streams that are crossed by the proposed route, the Cheyenne River is the largest water body and is classified as a warm water permanent fishery. Of the other streams that have been classified, habitat is considered more limited as indicated by a warm water semi-permanent or warm water marginal classification. Ex TC-1, 5.6.2, pp. 71-72, Table 13.
- 89. Keystone will direction drill the Little Missouri, Cheyenne and White River crossings, which will aid in minimizing impacts to important game and commercial fish species and special status species. Open-cut trenching, which can affect fisheries, will be used at other perennial streams. Keystone will use best practices to reduce or eliminate the impact of crossings at the

perennial streams other than the Cheyenne and White Rivers. Ex TC-1, 5.4.1, p. 46; 5.6.2, p. 72; TC-16, DR 3-39.

- 90. Water used for hydrostatic testing during construction and subsequently released will not result in contamination of aquatic ecosystems since the pipe is cleaned prior to testing and the discharge water is monitored and tested. Ex TC-1, 5.4.3.1, pp. 48-50.
- 91. During construction, Keystone will have a number of inspectors on a construction spread, including environmental inspectors, who will monitor erosion control, small spills, full tanks, and any environmental issues that arise. Tr. at 37-38.
- 92. Some conditions relate to construction and its effects upon affected landowners and their property. The Applicant may encounter physical conditions along the route during construction which make compliance with certain of these Conditions infeasible. If, after providing a copy of this order, including the Conditions, to the landowner and advising Commission staff, the Applicant and landowner agree in writing to modifications of one or more requirements specified in these conditions, such as maximum clearances or right-of-way widths, the Applicant may follow the alternative procedures and specifications agreed to between it and the landowner.
- 93. Keystone will be required to acquire permits authorizing the crossing of county roads and township roads. These permits will typically require Keystone to restore roads to their pre-construction condition. If its construction equipment causes damage to county or township roads, Keystone will be responsible for the repair of those roads to pre-construction condition. Pursuant to SDCL 49-41B-38, Keystone will be required to post a bond to ensure that any damage beyond normal wear to public roads, highways, bridges or other related facilities will be adequately compensated. Staff witness Binder recommended that the bond amount under SDCL 49-41B-38 for damage to highways, roads, bridges and other related facilities be set at \$15,600,000 for 2011 and \$15,600,000 for 2012. Tr. at 224. Keystone did not object to this requirement.
- 94. The Commission finds that the procedures in the CMR Plan and the other construction plans and procedures that Keystone has committed to implement, together with the conditions regarding construction practices adopted by the Commission herein, will minimize impacts from construction of the Project to the environment and social and economic condition of inhabitants and expected inhabitants in the Project area.

Operation and Maintenance

- 95. The Keystone pipeline will be designed constructed, tested and operated in accordance with all applicable requirements, including the U.S. Department of Transportation, Pipeline Hazardous Materials and Safety Administration ("PHMSA") regulations at 49 CFR Part 195, as modified by the requested Special Permit. These federal regulations are intended to ensure adequate protection for the public and the environment and to prevent crude oil pipeline accidents and failures. Ex TC-8, \P 7.
- 96. The safety features of Keystone's operations are governed by 49 CFR Part 195 and include aerial inspection 26 times per year, with any interval not to exceed three weeks, right-of-way maintenance for accessibility, and continual monitoring of the pipeline to identify potential integrity concerns. A Supervisory Control and Data Acquisition (SCADA) system will be used to monitor the pipeline at all times. Ex TC-8, \P 9.
- 97. The Project will have a Supervisory Control and Data Acquisition (SCADA) system to remotely monitor and control the pipeline. The SCADA system will include: (i) a redundant, fully functional back-up Operational Control Center available for service at all times; (ii) automatic features within the system to ensure operation within prescribed limits; and (iii) additional automatic features at the pump stations to provide pipeline pressure protection in the event that communications with the SCADA host are interrupted. Ex TC-10, \P 8.
- 98. The pipeline will have a control center manned 24 hours per day . A backup control center will also be constructed and maintained. A backup communications system is included within the system design and installation. Tr. at 82-83. Keystone's SCADA system is virtually 100% reliable. *Id*.
- 99. Keystone will use a series of complimentary and overlapping SCADA-based leak detection systems and methods at the Operational Control Center, including: (i) remote monitoring; (ii) software-based volume balance systems that monitor injection and delivery volumes; (iii) Computational Pipeline Monitoring or model-based leak detection systems that break the pipeline into smaller segments and monitor each segment on a mass balance basis; and (iv) computer-based, non-real-time, accumulated gain/(loss) volume trending to assist in identifying low rate or seepage releases below the 1.5 percent by volume detection threshold. The SCADA and other monitoring and control systems to be implemented by Keystone for the Project are state of the art and consistent with the best commercially available technology. Ex TC-10, ¶ 8. Staff witness William Mampre said Keystone's SCADA system was one he probably would have selected himself. Tr. at 431.

- 100. Additionally, Keystone will implement and utilize direct observation methodologies, which include aerial patrols, ground patrols and public and landowner awareness programs designed to encourage and facilitate the reporting of suspected leaks and events that may suggest a threat to the integrity of the pipeline. Ex TC10, \P 8. Remote sensing technologies that could be employed in pipeline surveillance such as aerial surveillance are in their infancy and practical systems are not currently available. Keystone would consider using such technology if it becomes commercially available. Tr. at 89-90.
- 101. Keystone will implement abnormal operating procedures when necessary and as required by 49 CFR 195.402(d). Abnormal operating procedures will be part of the written manual for normal operations, maintenance activities, and handling abnormal operating and emergencies. Ex TC-1, 2.3.2, p. 20.
- 102. As required by US DOT regulations, Keystone will prepare an emergency response plan ("ERP") for the system. Ex TC-11, \P 13. The ERP will be submitted to PHMSA for review prior to commencement of pipeline operations. Ex TC-11, \P 13. The Commission finds that the ERP and manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies as required under 49 CFR195.402 should also be submitted to the Commission at the time it is submitted to PHMSA to apprise the Commission of its details. Keystone has agreed to do this.
- 103. Under the ERP, Keystone will strategically locate emergency response equipment along the pipeline route. The equipment will include trailers, oil spill containment and recovery equipment, boats, and a communication office. Keystone will also have a number of land contractors available to provide emergency response assistance. TC-11, ¶ 15. Keystone's goal is to respond to any spill within six hours. Tr. at 102-03. Keystone has consulted with DENR in developing its ERP. Tr. at 111-12.
- 104. If the Keystone pipeline should experience a release, Keystone would implement its ERP. TC-11 \P 10; S-18, p. 4. The South Dakota Department of Environment and Natural Resources ("DENR") would be involved in the assessment and abatement of the release, and require the leak to be cleaned up and remediated. S-18, p. 5. The DENR has been successful in enforcing remediation laws to ensure the effects of any pipeline releases are mitigated. Tr. at 488-89, 497, 502-03.
- 105. Local emergency responders may be required to initially secure the scene and ensure the safety of the public, and Keystone will provide training in that regard. Ex TC-11, \P 17; Tr. at 105-07.

106. The Commission finds that the threat of serious injury to the environment or inhabitants of the State of South Dakota from a crude oil release is substantially mitigated by the integrity management, leak detection and emergency response processes and procedures that Keystone is continuing to plan and will implement.

Alternative Routes

- 107. The proposed Project route was developed through an, iterative process. TC-1, 4.1, p. 25. During the course of the route evaluation process, Keystone held public meetings, open houses, and one-on-one meetings with stakeholders to discuss and review the proposed routing through South Dakota. TC-1, 4.1.5, p. 27. The route was refined in Mellette County to avoid environmentally sensitive areas and reduce wetland crossings, and near Colome to avoid groundwater protection areas. Ex TC-3; TC-1, 4.2.1-4.2.2, p. 28.
- 108. SDCL 49-41B-36 explicitly states that Chapter 49-41B "shall not be construed as a delegation to the Public Utilities Commission of the authority to route a facility." The Commission accordingly finds and concludes that it lacks authority to compel the Applicant to select an alternative route or to base its decision on whether to grant or deny a permit for a proposed facility on whether the selected route is the route the Commission itself might select.

Socio-Economic Factors

- 109. Socio-economic evidence offered by both Keystone and Commission Staff demonstrates that the welfare of the citizens of South Dakota will not be impaired by the Project. Staff expert Dr. Michael Madden conducted a socio-economic analysis of the Keystone Pipeline, and concluded that the positive economic benefits of the project were unambiguous, while most if not all of the social impacts were positive or neutral. S-2, Madden Assessment at 21.
- 110. The Project will pay property taxes to local governments on an annual basis estimated to be in the millions of dollars. Ex TC-2, \P 24, TC-13, S-13; Tr. at 584. An increase in assessed, taxable valuation for school districts is a positive development. Tr. at 175.
- 111. The Project will bring jobs, both temporary and permanent, to the state of South Dakota and specifically to the areas of construction and operation. Ex TC-1 at 6.1.1, pp. 85-86.
- 112. The Project will have minimal effect in the areas of agriculture, commercial and industrial sectors, land values, housing, sewer and water, solid waste management, transportation, cultural and historical resources, health services, schools, recreation, public safety, noise, and

visual impacts. Ex TC-1. It follows that the project will not substantially impair the health, safety, or welfare of the inhabitants.

General

- 113. Applicant has provided all information required by ARSD Chapter 20:10:22 and SDCL Chapter 49-41B. S-1.
- 114. The Commission finds that the Conditions attached hereto as Exhibit A and incorporated herein by reference are supported by the record, are reasonable and will help ensure that the Project will meet the standards established for approval of a construction permit for the Project set forth in SDCL 49-41B-22 and should be adopted.
- 115. The Commission finds that subject to the conditions of the Special Permit and the Conditions set forth as Exhibit A hereto, the Project will (i) comply with all applicable laws and rules; (ii) not pose an unacceptable threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area; (iii) not substantially impair the health, safety or welfare of the inhabitants; and (iv) not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government.
- 116. The Commission finds that a permit to construct the Project should be granted subject to the Conditions set forth in Exhibit A.
- 117. To the extent that any Conclusion of Law set forth below is more appropriately a finding of fact, that Conclusion of Law is incorporated by reference as a Finding of Fact.

Based on the foregoing Findings of Fact, the Commission hereby makes the following:

CONCLUSIONS OF LAW

- 1. The Commission has jurisdiction over the subject matter and parties to this proceeding pursuant to SDCL Chapter 49-41B and ARSD Chapter 20:10:22. Subject to the findings made on the four elements of proof under SDCL 49-41B-22, the Commission has authority to grant, deny or grant upon reasonable terms, conditions or modifications, a permit for the construction, operation and maintenance of the TransCanada Keystone XL Pipeline.
- 2. The TransCanada Keystone Pipeline Project is a transmission facility as defined in SDCL 49-41B-2.1(3).
- 3. Applicant's permit application, as amended and supplemented through the proceedings in this matter, complies with the applicable requirements of SDCL Chapter 49-41B and ARSD Chapter 20:10:22.
- 4. The Project, if constructed in accordance with the terms and conditions of this decision, will comply with all applicable laws and rules, including all requirements of SDCL Chapter 49-41B and ARSD 20:10:22.
- 5. The Project, if constructed in accordance with the terms and conditions of this decision, will not pose an unacceptable threat of serious injury to the environment nor to the social and economic conditions of inhabitants or expected inhabitants in the siting area.
- 6. The Project, if constructed in accordance with the terms and conditions of this decision, will not substantially impair the health, safety or welfare of the inhabitants in the siting area.
- 7. The Project, if constructed in accordance with the terms and conditions of this decision, will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government.
- 8. The standard of proof is by the preponderance of evidence. The Applicant has met its burden of proof pursuant to SDCL 49-41B-22 and is entitled to a permit as provided in SDCL 49-41B-25.

- 9. The Commission has authority to revoke or suspend any permit granted under the South Dakota Energy Facility Permit Act for failure to comply with the terms and conditions of the permit pursuant to SDCL 49-41B-33 and must approve any transfer of the permit granted by this Order pursuant to SDCL 49-41B-29.
- 10. To the extent that any of the Findings of Fact in this decision are determined to be conclusions of law or mixed findings of fact and conclusions of law, the same are incorporated herein by this reference as a Conclusion of Law as if set forth in full herein.
- 11. Because a federal EIS will be completed for the Project and because the federal EIS complies with the requirements of SDCL Chapter 34A-9, the Commission appropriately exercised its discretion under SDCL 49-41B-21 in determining not to prepare or require the preparation of a second EIS.
- 12. PHMSA is delegated exclusive authority over the establishment and enforcement of safety-orientated design and operational standards for hazardous materials pipelines. 49 U.S.C. 60101, et seq.
- 13. SDCL 49-41B-36 explicitly states that SDCL Chapter 49-41B "shall not be construed as a delegation to the Public Utilities Commission of the authority to route a facility." The Commission accordingly concludes that it lacks authority (i) to compel the Applicant to select an alternative route or (ii) to base its decision on whether to grant or deny a permit for a proposed facility on whether the selected route is the route the Commission might itself select.
- 14. The Commission concludes that it needs no other information to assess the impact of the proposed facility or to determine if Applicant or any Intervenor has met its burden of proof.
- 15. The Commission concludes that the Application and all required filings have been filed with the Commission in conformity with South Dakota law and that all procedural requirements under South Dakota law, including public hearing requirements, have been met or exceeded.
- 16. The Commission concludes that it possesses the authority under SDCL 49-41B-25 to impose conditions on the construction, operation and maintenance of the Project, that the Conditions set forth in Exhibit A are supported by the record, are reasonable and will help ensure that the Project will meet the standards established for approval of a construction permit for the Project set forth in SDCL 49-41B-22 and that the Conditions are hereby adopted.

NOTICE OF ENTRY AND OF RIGHT TO APPEAL

PLEASE TAKE NOTICE that this Final Decision and Order was duly issued and entered on the day of March, 2010. Pursuant to SDCL 1-26-32, this Final Decision and Order will take effect days after the date of receipt or failure to accept delivery of the decision by the parties. Pursuant to ARSD 20:10:01:30.01, an application for a rehearing or reconsideration may be made by filing a written petition with the Commission within 30 days from the date of issuance of this Final Decision and Order; Notice of Entry. Pursuant to SDCL 1-26-31, the parties have the right to appeal this Final Decision and Order to the appropriate Circuit Court by serving notice of appeal of this decision to the circuit court within thirty (30) days after the date of service of this Notice of Decision.

Dated at Pierre, South Dakota, this _____ of March, 2010.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, electronically.

By:______

GARY HANSON, Commissioner

Date:______

(OFFICIAL SEAL)