BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

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 PIPELINE PROJECT	)))))))	HP 07-001 **REBUTTAL TESTIMONY OF L.A. GRAY**

1. State your name and occupation.

A: L.A. Buster Gray, Senior Vice President, Universal ENSCO, Houston, TX.

2. Did you provide direct testimony in this proceeding?

A. Yes

3. In rebuttal, to whose direct testimony are you responding?

A. I am responding to the direct testimonies of Delwin Hofer, and Tim Hofer, Kirk Madsen and Kim Madsen, Ron Schaeffer, the South Dakota Association of Towns and Townships, Tom Janssen and John Muehlhausen.

4. In their testimonies in this matter, Delwin Hofer and Tim Hofer testified regarding a concern about access to farmland during construction. Can you comment on that?

A. Should a landowner be concerned the pipeline construction right of way will block access to his farm to maintain crops or livestock, the landowner should make that issue known to the land agent during easement negotiations. The land agent has a construction restriction binding agreement specifically for issues like this. The land agent documents the issue and this

issue is transferred to a construction line list that is part of the construction contract. During construction, a section of pipe and a whole in the spoil piles will be left open to allow ingress and egress by the landowner. When this pipe section is later installed by a tie in crew, the access point will only be disturbed for a few hours.

5. In his testimony in this matter, Delwin Hofer indicates his concern that the proposed pipe bending will damage the pipe's integrity and coatings. Can you comment?

A. The bending of line pipe is restricted to 1.5 degrees per 2.5 feet of length of line pipe and in accordance with company specifications and federal codes. This bending radius is very small and does not weaken the line pipe at the bend location. Additionally, pipe coatings are manufactured to have elasticity and do not crack under the small field bending angle.

6. In his testimony, Tim Hofer testifies that he has concerns about the return of the farmland to its original condition. Are those concerns addressed by Keystone?

A. Yes, they are addressed. Keystone's Construction Mitigation & Reclamation Plan includes many mitigation steps in order to return the farmer's 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. There are hundreds of thousands of miles of existing pipelines in the U.S. with the largest portion of these miles through rural farm areas in which the pipeline right of way has been restored and agricultural production returned to pre-construction yields. However, should, for whatever reason, Keystone fail to return the farm land to pre-construction agricultural production, Keystone would be liable to work with the landowner to restore the lands further or compensate the landowner for the loss of yield.

7. In their prefiled testimony, Kim Madsen and Kirk Madsen relate that there is no road to the proposed site of Pump Station No. 21 near their farm. Is that so? And if so, what does Keystone propose to address that condition?

A. Pump station 21 has been sited just south of the Madsen property and requires constructing an access road approximately 1,000 feet long, in a westerly direction, from 415th Avenue (a public road).

8. In his testimony, Kirk Madsen states that there is a very high water table in the vicinity of his farm and is concerned about pipeline construction and operation as a result. Can you comment on that?

A. Pipelines are constructed in all types of terrain including across lakes, rivers, wetlands, and lands with high water tables. During design, this will be assessed and, should the pipeline require negative buoyancy to install the pipe and keep it from floating during and immediately after construction, the pipe will be either coated with concrete or concrete or sack weights placed on the pipe to prevent flotation. During construction, heavy equipment will work off of timber mats if necessary to support the considerable weight.

Additionally, during construction, when highly saturated soil conditions are experienced, equipment will work off of timber mats if necessary to support the heavy equipment.

9. In his testimony, Ron Schaeffer testified that his plans to tile land for drainage may be impacted by the construction of the pipeline. Is that the case?

A. Pipelines exist in states that have a predominance of a drain tile including Minnesota, Iowa and Illinois. Typically, the pipeline is installed beneath existing drain tile systems. In this instance of a proposed drain tile system, Keystone will work with the landowner to determine the proposed layout of the drain tile system and work to install the pipeline in a manner not to interfere with the future installation of the drain tile system including installing the pipeline at extra depth where necessary. Section 5 of the CMRP addresses mitigation and reclamation requirements installation in areas of agricultural drain tile and Section 5.3.4 specifically addresses landowners planning future drain tile systems.

Excess subsoil material (spoil) created by the placement of the 30" line pipe in the trench is feathered across the 110 feet construction right of way (standard pipeline industry practice) during cleanup operations. The area of the 30" line pipe is approximately 4.9 square feet (or 4.9 cubic feet for each linear foot of pipeline). When spread across the 110 feet construction right of way, this volume of spoil is about 0.5 inches in depth.

10. The South Dakota Association of Towns and Townships has an interest in road crossings. What does Keystone propose for the crossings of roads in rural South Dakota?

A. Keystone must seek permits from all counties and townships to cross their roads with the pipeline. This permitting process generally specifies the county's and township's requirements for crossing the roads (boring or open cut, etc) as well as the requirements for restoration for the roads. At this same time, counties and townships can require Keystone enter into agreements regarding the use and restoration of their roads during construction. These agreements may include requirements for grading during construction and replacement of surfacing materials during and after construction.

11. Staff expert Tom Janssen testified to a concern regarding dust control and covering open bodied trucks. Can you comment on that?

A. Most of the region of South Dakota crossed by the Keystone pipeline is rural and mostly agricultural. Additionally, most rural roads are not paved. Dust from open bodied trucks is inconsequential relative to dust from agricultural operations or from dust created by wheels from vehicles on non-paved roads.

12. Mr. Janssen also testified to concerns about topsoil removal over the trench and the spoil requirements. Can you discuss that?

A. There are varying best management practices for topsoil removal and salvage to aid in salvaging topsoil resources to aid in conserving the lands agricultural capability. There are 3 methods used by the pipeline industry as follows:

1. Stripping of Trench Only: This involves stripping topsoil only in the area above the trench line. This is the least disturbance and handling of topsoil.

2. Stripping of Trench and Spoil Side: This involves stripping topsoil in the area above the trench line and where the trench spoil will be placed.

3. Stripping of Full right of way: This involves stripping the entire construction work area. This is the greatest disturbance and handling of topsoil.

Topsoil conservation stripping procedures is highly dependent on landscape topography, soil resources present, land management practices and land use and practical restrictions related to construction equipment limitations. The standard topsoil conservation procedures mentioned above possess numerous benefits and constraints and need to be determined based on the site

specific issues to ensure conservation is attained. It is widely known that reducing the amount of soil disturbance diminishes the potential risks in affecting agricultural land capability. It is Keystone's position to let the landowner determine the topsoil stripping method that is preferred on his land and not dictate the method to him.

13. Mr. Janssen also testified to concerns about easement and workspace requirements in wetlands and forested areas. Can you discuss that?

A. A 75 feet wide construction right of way through wetlands was a requirement in FERC's guidelines for natural gas projects developed in the early 1990s. Pipeline construction has proven this standard width requirement of one size fits all (whether the pipeline is 4" or 42") is not sufficient in many instances for large diameter pipeline projects. A contractor simply cannot excavate the trench for large diameter pipe, and place the spoil, particularly in non-cohesive soils, and maintain the workspace, all within 75 feet.

After construction, Keystone will be maintaining a 20-30 foot wide corridor in an herbaceous state to provide adequate visibility for monitoring the pipeline right of way by aerial patrol. In forested wetlands, Keystone has committed to maintaining a 10-foot wide corridor in an herbaceous state and selectively cutting and removing trees greater than 15 feet in height within 15 feet of the pipeline.

14. Staff expert John Muehlhausen testified to his concern that Keystone should monitor the post-construction crops except where waived in writing. Can you comment on that?

A. Keystone is responsible for restoration of the land and returning the land to its original productivity under its easement agreement and as found in Section 4.15 of the CMRP.

Keystone's land acquisition program compensates landowners for crop loss damages at 100% for the year of construction, 75% for the first year after construction, and 50% for the second year after construction. Experience in the pipeline industry has shown that most land will return to its original productivity in this timeframe. Should crop yield losses occur after this period, the best party to monitor and assess crop's productivity after this period is the landowner and, should there be a productivity loss issue, the landowner will advise Keystone. Keystone, in consultation with the landowner, will resolve the issue through implementation of additional land reclamation procedures or by compensation.

15. Mr. Muehlhausen also testified to his concern regarding mitigations for pipeline construction activities near residences. Can you comment on that?

A. Mitigations for pipeline construction near residences are outlined in Section 4.14 of the Construction Mitigation Plan. Mitigations include:

- reduction of width of construction right of way
- fencing the edge of the construction right of way
- posting warning signs
- maintaining access
- installation of line pipe near the residence with a special crew minimizing construction activity in the area
- preserving mature trees and landscaping where possible
- limiting the hours of operation of construction equipment
- utilizing dust control mitigation
- initiating restoration immediately after installation of the pipeline

16. Mr. Muehlhausen also testified regarding road maintenance and repairs as needed after construction. Can you provide comment on that?

A. See my answer to question 10 above regarding "road program maintenance and repair". Keystone will restore roads as near as practical to their original condition but cannot commit to restoration of roads to "better" condition. This would be committing to improve all roads used by the construction spread whether damaged or not. That is clearly not practical.

Keystone will adhere to road crossing permit requirements for keeping paved public roads clean and free from dirt and debris.

17. Does this conclude your rebuttal testimony?

A. For this round, yes, it does.

Dated this 14 day of November, 2007.

L.A. "Buster" Gray