

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION) HP 07-001
BY TRANSCANADA KEYSTONE PIPELINE,)
LP FOR A PERMIT UNDER THE SOUTH)
DAKOTA ENERGY CONVERSION AND) **REBUTTAL TESTIMONY**
TRANSMISSION FACILITIES ACT TO) **OF MEERA KOTHARI**
CONSTRUCT THE KEYSTONE PIPELINE)
PROJECT)

1. State your name and occupation

A: Meera Kothari, Professional Engineer, TransCanada, Calgary, AB.

2. Did you provide direct testimony in this proceeding?

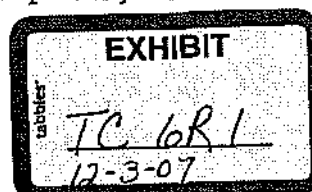
A. Yes.

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

A. I am responding to the direct testimonies of PUC Staff experts Dan Hannan and William Walsh.

4. Mr. Dan Hannan, at p. 3 of his testimony, discusses spill risks in the DNV risk assessment study and indicates a need to account for these excavation activities in the risk assessment. Can you comment?

A. Considering the risk from excavation: the objective of the frequency volume study was to obtain an order of magnitude, of the risk for the entire pipeline, not to specifically assess a variety of specific actions which could pose a potential for excavation damage. Land classification (ie where agriculture activities are present) and co-located pipelines or utilities is



TC 6 - R(1)

accounted for in the analysis. Keystone will use existing TransCanada protocols and procedures for urban development. The integrity management program will include excavation operating procedures. Lastly, Keystone will use TransCanada excavation operating procedures for any emergency excavations.

5. Mr. William Walsh, at Section III of his testimony indicates that the pipe wall thickness will be .338 inches. Is he correct? Can you comment?

A. No, the calculation is not correct. Keystone is using X70 pipe grade material and not X80 so the wall thicknesses are incorrect, the pipe wall thickness will be .429 inches for the .72 design factor and .386 inches for the .8 design factor.

6. Mr. Walsh, at Section III of his testimony discusses 195.112, manufacturing standards and pipe material quality. Can you comment?

A. API 5L Product Specification level 2 is the highest specification for natural gas pipelines. Keystone will be implementing it for its crude oil pipeline. This exceeds the current crude oil specification requirement (specification level 1). The use of Level 2 ensures there are proven fracture control properties contained in the pipe compared to what would be there otherwise.

7. Mr. Walsh also indicates that 36" of cover is the code requirement at Section 195.248 for Keystone. Can you comment?

A. The code requirement for Keystone is 30", the industry standard is 36". Keystone will

use 48" of cover to the top of the pipe, except in areas of consolidated rock, as indicated.

8. Mr. Walsh discusses the placement of valves along the pipeline with respect to Section 195.260. Can you comment?

A. Section 195.260 contains the considerations required for placement of valves. Pipeline threats and the risk to the pipeline is reassessed on an annual basis. Keystone will account for new HCAs as part of the annual reassessment, and incorporate findings back into the integrity management program to determine if further action is required.

9. Mr. Walsh discusses Section 195.304 and the pipe wall thickness in the Missouri River crossing as being .611 inches. Is he correct?

A. No, as outlined above, the differences in pipe grade would indicate a wall thickness of 0.622 for the Missouri river crossing.

10. In discussing Section 195.406, Mr. Walsh requests that Keystone include the effects of an unexpected, instantaneous loss of pumping equipment in the surge analysis. Can you comment?

A. Keystone has indeed performed a preliminary surge analysis, and intends to complete the detailed surge analysis later this year or early next year once engineering design has progressed. Keystone will include the Walsh request in that detailed surge analysis.

11. Have you reviewed Mr. Walsh's final recommendations? Do you have any comment?

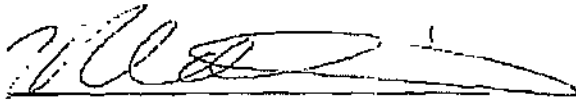
A. Yes and yes. Mr. Walsh recommended clarification on 2 points. The first was with regard to isolation times and drain out. The method of calculating outflow is conservative. His

second recommendation with respect to final surge mitigation design is, as discussed above, intended as part of the design.

12. Does this conclude your rebuttal testimony?

A. For this round, yes, it does.

Dated this 14th day of November, 2007.

A handwritten signature in black ink, appearing to read 'Meera Kothari', written over a horizontal line.

Meera Kothari, P.Eng.