

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA**

IN THE MATTER OF THE PETITION OF)
TRANSCANADA KEYSTONE PIPELINE,) Docket 14-001
LP FOR ORDER ACCEPTING)
CERTIFICATION OF PERMIT ISSUED IN) **REBUTTAL TESTIMONY OF EVAN**
DOCKET HP09-001 TO CONSTRUCT THE) **VOKES ON BEHALF OF DAKOTA**
KEYSTONE XL PIPELINE) **RURAL ACTION**
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This statement is submitted by Evan Vokes on behalf of Dakota Rural Action (“DRA”) in response to the written testimony provided by Corey Goulet PEng and Meera Kothani PEng on behalf of TransCanada Keystone Pipeline, LP (“TransCanada”), in the above-captioned proceedings governing recertification of the South Dakota Public Utilities Commission’s June 29, 2010, Amended Final Decision and Order (Docket HP 09-001) (the “Permit”):

1. Permit Condition No. 1 requires TransCanada to comply with all applicable laws and regulations in its construction and operation of the Project. These laws and regulations include, but are not necessarily limited to: the federal Hazardous Liquid Pipeline Safety Act of 1979 and Pipeline Safety Improvement Act of 2002, as amended by the Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006, and the various other pipeline safety statutes currently codified at 49 U.S.C. § 601 et seq. (collectively, the “PSA”); the regulations of the United States Department of Transportation implementing the PSA, particularly 49 C.F.R Parts 194 and 195.
- a. TransCanada systemically violated these same conditions on the Gulf Coast pipelines. PHMSA project reports and notices of violations for the KXL Gulf Coast portion of the pipeline indicate that TransCanada was non-compliant in several areas, demonstrating that both TransCanada and their third party inspection contractor display an unwillingness or inability to comply with the conditions imposed upon them.
- b. As a result of construction methods and inspections used on the KXL Gulf Coast section of the pipeline, many anomalies were introduced to the pipeline – some of a minor, others severe.
- c. Throughout a pipeline segment of 300 miles in length, one can expect a small number of girth welds among the thousands of girth welds that will not be pressure tested. In the case of KXL Gulf Coast, TransCanada has admitted to approximately 200 pipe replacements, meaning 400 welds that are not of the same standard of quality inspection or subjected to the pressure testing of the original pipeline. If a pipeline is properly constructed in accord with the spirit of the requirements of 49 C.F.R Part 195, there would be no need for such pipe replacements.

- d. PHMSA Gulf Coast project inspection reports indicate that even though PHMSA engaged in minimal oversight over the pipeline right-of-way, multiple violations were found. PHMSA has never stopped TransCanada from constructing or required remediation of these shortcomings.
- e. TransCanada's failure to ensure that the land was properly restored has been documented from the original Keystone to Bison, to Keystone Gulf Coast. TransCanada's unwillingness to take care of other stakeholders and willingness to shift blame for their own shortcomings is systemic.
- f. Landowners along the Gulf Coast route of TransCanada's KXL pipeline took extensive photographs documenting substandard construction and reclamation practices. Noteworthy photograph showing peeling coating on the pipeline was taken by a family named Holland near Beaumont, Texas, and was one of hundreds of pictures of poor practices ranging from pipe handling damage, insufficient coverage of pipe to not skidding pipe correctly. OH&S violations with pipe falling off the skids were also documented similar to the allegations of the death on Keystone Gulf Coast. Many of these photographs document violations of both Part 195 and the 57 conditions agreed to by TransCanada as set forth in Appendix Z to the US State Department's FSEIS.
- g. The Toronto Star documented that TransCanada did not have sufficient organizational capacity to ensure compliance in the United States with respect to PHMSA's pipeline regulations, notwithstanding similar issues in Canada. Further evidence of failure to comply with Part 195 was documented by the Houston Chronicle, which published photographs showing multiple instances of non-compliance with Part 195 and OHSA conditions.

2. Information provided by TransCanada concerning Finding No. 68, with respect to issues concerning cathodic protection of pipeline coating due to alleged interference by an adjacent foreign utility is both incomplete and appears to be factually incorrect, in that the failure can be traced to several violations of Part 195 on the part of TransCanada. Regardless of TransCanada's assurances, the event occurred, it was severe, and it was due to TransCanada management's failure to comply with Part 195. Understanding that all corrosion is the exchange of metal electrons, the scenario should have been fully investigated, as TransCanada's explanation is not descriptive of what occurred. TransCanada's official public communications and communications with PHMSA show that the event which required instant shut-in of the Keystone pipeline was a very serious threat to public safety. This evidence of cathodic interference correctly belonged in Condition No.1, as it was not a coating failure.

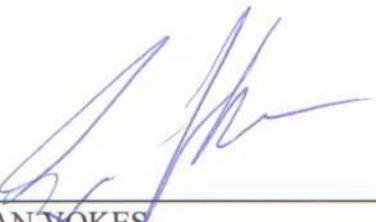
3. Contrary to TransCanada's submitted testimony on Findings No. 68, problems exist with respect to its use of Fusion Bonded Epoxy (FBE) pipeline coatings. TransCanada failed to reveal that there was a mass disbondment on the GTN pipeline of newly-installed FBE coatings. It would be relevant for TransCanada's engineers to present this evidence of what can go wrong with FBEs. Additionally, when repairing damaged FBEs and coating of welds, some of TransCanada's practices have been flagged as substandard by PHMSA and TransCanada

contractors. TransCanada should be compelled to produce the reports on substandard practices taking place during Keystone system construction in 2009, the PHMSA audit and compare those to landowner observations of coating falling off the Keystone Gulf Coast Pipeline in 2013 under the same special permit conditions for enhanced inspections.

4. The dilbit mix shipped on the Keystone pipeline is subject to column separation. This requires particular engineering controls to ensure the mixture does not separate and overpressure segments of the pipeline. Not only is this an ongoing risk in the Keystone system, but it is also a risk in pipelines it feeds such as Pegasus in Mayflower, Arkansas. Column separation would explain many of the observations derived from the Mayflower incident – from the rupture, to the separation of dilbit in the water.

5. TransCanada has had a systemic problem with materials quality. In a public presentation, Kenneth Lee of PHMSA highlighted problems with TransCanada's construction of the Keystone system, including back-beveled transitions, substandard welding, but more importantly, elbows from Keystone. There are approximately 1,200 elbows of unproven quality in TransCanada's Keystone system, which have not been replaced. In October 17, 2013 an elbow with exactly the same non compliant microstructure blew out on a directional drill. The elbows at North Central Corridor Buffalo West and Keystone do not meet the minimum federal standards, yet are in service. Some of these elbows are now fiberglass reinforced but that does not make them complaint.

6. Documents received from a Freedom of Information Act request relating to the October 2012 repair of Keystone shows that the pipeline was not restored to the original design conditions. The Armor Plate repair can compensate for hoop strength of a pipeline but it cannot restore the mandatory toughness of the original design and would not meet the requirement for puncture resistance under current PHMSA conditions.



EVAN VOKES

June 26, 2015

Date