Questions from Cindy Myers to PUC Staff

5) Has the PUC considered that toxins from KXL spillage could migrate via flowing water into public water intakes along the Missouri River? Where can I discover information as to locations of public water intakes along the Missouri River?

Information about public water intakes in South Dakota is available on DENR's website at http://denr.sd.gov/des/dw/sysinfomap.aspx.

6) Who is responsible for testing water for those expected/undetected leaks? Particularly in Tripp County where the pipeline will be immersed in groundwater?

TransCanada, with regulatory oversight by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA), will be responsible for the monitoring and operation of the proposed Keystone XL pipeline throughout South Dakota. PHMSA's construction, operation and monitoring requirements are outlined in the Code of Federal Regulations Title 49, Part 195 – Transportation of Hazardous Liquids by Pipeline.

If the pipeline leaked, South Dakota Codified Law (SDCL) 34A-18 requires crude oil pipeline operators to implement their response plan regardless of who caused the release. DENR has regulatory authority over the assessment and cleanup of pipeline spills and will ensure cleanup continues until all state requirements and standards are met. This would include sampling water supplies to ensure no water supply sources are impacted. If a water supply is impacted, TransCanada would be responsible for mitigating those impacts.

In addition, the federal Safe Drinking Water Act requires public water systems to periodically sample for volatile organic chemicals. Samples are collected by water systems operation specialists and analyzed in a laboratory certified to analyze drinking water samples for volatile organic chemicals. Samples are collected from the entry point to the distribution system at a frequency based on prior detections with all data reported to DENR's Drinking Water Program. If contamination is detected in a water supply above regulatory limits, operators work with DENR to correct the problem and identify the contaminant source.

9) What education and training has been completed for SD public water treatment utilities to prepare them for tar sands spillage into SD waterways?

DENR contracts for water system operation specialist certification training through the South Dakota Association of Rural Water Systems. The certification training includes information and education on emergency response activities resulting from a variety of scenarios including petroleum releases and other contamination events.

In addition, a research project was conducted through South Dakota's Regional Water System Research Consortium titled *Improving Safety of Crude Oil and Regional Water System Pipeline Crossings*. The report findings were presented at several conferences attended by water system

personnel. The study dealt specifically with crude oil pipelines and makes design recommendation for pipeline designs when crossing regional water systems distribution lines. The report is available on the internet at:
http://www.sdarws.com/PDF/SDRWRC/PipelineCrossingSafetyFinalReport.pdf

11) What information have you shared with water treatment plants which access the Missouri River about oil spills into the Missouri River or tributaries of the Missouri River?

DENR along with representatives from Iowa, Nebraska, local emergency managers, wildlife experts, EPA Region VII, and industry representatives including TransCanada are all participants in the Siouxland Sub-area Spill Contingency Committee who worked to develop a Siouxland Sub-area Spill Contingency Plan. As part of the implementation of this plan the group holds exercises, training sessions and meetings to discuss response and recovery efforts needed to respond to large oil or chemical releases. The plan addresses potential impacts to water supply intakes and notification procedures in the event of a release.

In addition, if there is a release into the Missouri River DENR's spill program works with the Drinking Water Program to ensure potentially impacted downstream facilities are notified and assisted as needed.

12) What information about tar sands spills into waterways has TransCanada provided the Department of Environment and Natural Resources?

TransCanada has not provided DENR with any specific information about tar sands spills into waterways from the proposed Keystone XL pipeline. However, SDCL 34A-18 requires crude oil pipeline operators to submit an oil spill response plan to DENR prior to operating the pipeline. The plan will address crude oil spills into waterways. DENR expects TransCanada to comply with SDCL 34A-18 prior to placing the Keystone XL pipeline into operation.

In compliance with SDCL 34A-18, TransCanada has provided DENR with an oil spill response plan for the existing Keystone pipeline and has conducted two full-scale spill response exercises in Yankton, SD where the pipeline crosses the Missouri River.

13) What plan do you have in place to respond to tar sands oil spills into the Missouri River or tributaries of the Missouri River?

SDCL 34A-18 requires crude oil pipeline operators to submit their oil spill response plan to DENR for approval and requires crude oil pipeline operators to implement their response plan in the event of a spill regardless of where the spill is or who caused the release.

In the event of a pipeline leak, DENR has regulatory authority over the assessment and cleanup of the spill and will ensure the cleanup continues until all state requirements and standards are met.

If the pipeline company did not responds to a spill, DENR has the authority to take legal action against the company to force their response, and while legal action is pending, has access to state and federal safety net clean up funds that could be used to initiate a response to protect against immediate threats to human health and the environment.

In addition DENR has been involved in the development of the following response plans and procedures which may be implemented in the event of a major crude oil spill: EPA Region VIII Emergency Response Plan, South Dakota Emergency Response Plan, South Dakota Disaster Recovery Plan, DENR Emergency Operations Plan, and DENR's Handbook for Reporting, Investigating, and Remediating Petroleum Releases in South Dakota.

14) What education and training has been provided to water treatment facilities accessing Missouri River water regarding how to adequately respond to tar sands oil spills into the Missouri River or tributaries of the Missouri River?

Education and training associated with spill response and other source water contamination events is included in DENR's contracted system operations specialist training as noted in question #9 above.

15) How do you plan to clean up a tar sands spill into the High Plains Aquifer in Tripp County?

SDCL 34A-18 requires crude oil pipeline operators to submit their oil spill response plan to DENR for approval and requires crude oil pipeline operators to implement their response plan in the event of a spill regardless of where the spill is or who caused the release. If the proposed Keystone XL pipeline leaked into the High Plains aquifer, TransCanada would be responsible for the cleanup.

However, DENR has regulatory authority over the assessment and cleanup of the spill and will ensure the cleanup continues until all state requirements and standards are met. In general, required cleanup actions would include: stopping the release, removal of free product, sampling of soil, surface water and groundwater to define the nature and extent of the contamination, design and implementation of cleanup actions to remediate remaining contamination to levels below state standards.

If the pipeline company did not responds to a spill, DENR has the authority to take legal action against the company to force their response, and while legal action is pending, has access to state and federal safety net clean up funds that could be used to initiate a response to protect against immediate threats to human health and the environment.

16) Describe the experience the State of South Dakota has had using "sparging" to clean up an aquifer. Has "sparging" ever been used to clean tar sands oil product from an aquifer?

DENR has not used sparging to cleanup a tar sands oil spill in an aquifer because there has not been a tar sands oil spill that has impacted an aquifer in South Dakota. However, DENR staff do

have experience with the installation and operation of soil vapor extraction and sparging systems used to remediate aquifers contaminated with refined petroleum products such as gasoline and diesel fuel.