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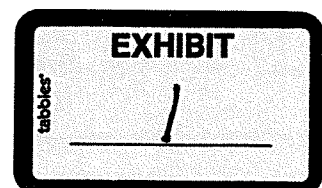
## **Mni Wiconi Project, OSRWSS Core System Crossing Criteria for the TransCanada Keystone XL Project**

**Background Information:** The Mni Wiconi Project in South Dakota includes the Oglala Sioux Rural water Supply System (OSRWSS Core System) which delivers potable water from the vicinity of Fort Pierre, South Dakota, south to three Indian reservations and a non-Indian rural water system. The OSRWSS Core System has two major conveyance pipelines, the South Core line and North Coreline. The South Core line runs directly south of Fort Pierre while the North Core line runs west of Fort Pierre about 40 miles and then south. At the proposed Keystone XL Pipeline crossings the South Core pipeline is constructed of 24 inch diameter steel while the North Core pipeline is constructed of 14 inch PVC.

**Interruption of Service during Keystone XL Construction:** TransCanada shall make provisions acceptable to Reclamation and OSRWSS for any activity conducted by TransCanada that causes water service in the OSRWSS Core System pipeline to be interrupted during Keystone XL construction. Under no circumstances shall the South Core and North Core pipelines have interruptions in water service at the same time. Such provisions shall include advance notification of the service interruption and temporary facilities to continue water service for interruptions lasting longer than 12 hours.

### **General Crossing Criteria:**

- Not later than 10 days before start of construction, TransCanada shall provide OSRWSS and Reclamation with notice of the start of construction in the vicinity of the crossing to facilitate monitoring and observation.
- TransCanada shall be responsible for addressing landowner concerns, issues and interests within the OSRWSS right-of-way or easement.
- A minimum clearance of 6 feet between the TransCanada Keystone XL pipeline and the OSRWSS Core System potable water pipelines at both crossing shall be maintained.
- TransCanada must design its crossings such that the OSRWSS Core pipeline suffers no reduction in working pressure rating or pipeline integrity due to the operations of TransCanada. TransCanada will design the Keystone XL pipeline at both crossings with a 50 percent working pressure factor (as referenced in Appendix M of the Plan of Development). The higher pressure rated pipe should extend through the existing OSRWSS Core rights-of-way at both crossing locations.
- TransCanada shall install above ground signage (noting Keystone Pipeline location), and provide copies of as-built drawings of the Keystone XL Pipeline crossings to OSRWSS and Reclamation within 90 days of substantial completion of the crossing. The as-built drawings will show the location of the Keystone XL pipeline, the OSRWSS Core System pipelines and the fiber optic cables. The drawings will denote the latitude and longitude coordinates at each crossing location.



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**South Core Pipeline Crossing Criteria:**  
NW ¼, Section 36, T1S, R29E, Jones County

- The following drawings depict details of the OSRWSS pipeline in the vicinity of the crossings.
  1. Drawing G-3 showing the general location of the OSRWSS steel pipeline crossing
  2. Drawing C-40 showing the plan and profile of the OSRWSS steel pipeline crossing.
  3. Drawing CP-1 showing the Corrosion Protection (CP) Details
- TransCanada shall provide OSRWSS and Reclamation with drawings and specifications for review and comment of all features of construction at the crossing, including cathodic protection. The cathodic protection design is of particular concern to assure it does not impact the South Core pipeline or its cathodic protection system. Comments will be provided to TransCanada which shall be incorporated into the final project Plan of Development.
- TransCanada shall bore under the OSRWSS South Core pipeline right-of-way, which is 75 feet wide.
- The OSRWSS South Core line (24 inch diameter steel) is protected by an induced current ground bed. TransCanada must coordinate and correspond with OSRWSS's and Reclamation's corrosion experts prior to developing crossing plans to assess the potential impacts of interference of its pipeline.
- TransCanada shall install test stations as shown on Drawing CP-1. An alternate design / location of the corrosion protection test station may be used if mutually acceptable.
- TransCanada shall not case the Keystone XL pipeline crossing under the OSRWSS South Core line due to potential cathodic protection interference problems. If this is not possible, then TransCanada must provide a cathodic protection plan for review, comment, and approval from OSRWSS and Reclamation which accounts for the casing pipe.
- OSRWSS has a buried fiber optic cable installed above the South Core pipeline that was placed by plow; its precise location is unknown. The burial depth information provided on the drawings is for information purposes only. TransCanada shall take whatever precautions necessary to avoid damaging the buried fiber optic cable.

**North Core Pipeline Crossing Criteria:**  
NE ¼, Section 8, T2N, R23E, Haakon County

- TransCanada shall provide OSRWSS and Reclamation with drawings and specifications for review and comment of all features of construction at the crossing. Comments will be

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provided to TransCanada which shall be incorporate into the final project Plan of Development.

- The North Core pipeline (14 inch PVC) will be relocated a minimum of 6 feet below the planned bottom of the Keystone XL pipeline at the crossing location.
- The North Core pipeline (14 inch PVC) pipeline will include a casing pipe using fused joint PVC pipe designed with sufficient diameter and wall strength for the burial conditions. Ends of casing pipe will be sealed.
- The casing pipe will have a minimum total length of 300 feet (150 feet each side of crossing) or longer depending on allowable deflection of the North Core pipeline (14 inch PVC) and fused joint PVC pipe.
- The North Core pipeline relocation shall be designed and constructed in accordance with industry acceptance standards including applicable American Water Works Association manuals and 10 States Standards - Recommended Standards for Water Works.
- The North Core pipeline relocation site will be reclaimed as near as possible to its condition prior to the disturbance. The North Core pipeline will be relocated in a manner that causes the least interference to the landowner and their use of the land and if any injury is necessarily done to appurtenances such as roads, ditches, drainage, fences, vegetation, etc., it will repair or replace the same or will pay the landowner for such injury.