

GENERAL GUIDELINES

Work within the TransCanada right-of-way shall be performed in accordance with TransCanada procedures to protect the safety of TransCanada facilities and that of the general public. The following guidelines, although not all inclusive, are provided in order to assist you in your project planning. THESE GUIDELINES ARE NOT TO BE CONSIDERED APPROVAL FOR CONSTRUCTION ACTIVITY WITHIN OUR RIGHT-OF-WAY OR NEAR OUR PIPELINES. Specific guidelines, and crossing agreement if applicable, will be provided to you upon completion of a review of your final plans by our Pipeline Integrity Group Engineer. The following are some of our general guidelines:

1. No ground disturbance shall be made within TransCanada's right-of-way or within 25 ft., measured at right angles, of our pipeline(s) except in the presence of our company representative.

2. Notice of at least seventy-two (72) hours in advance of construction must be provided. You must contact a TransCanada field representative at a number to be provided. Please note that voice messages do not constitute 72 hour notice. Person to person contact must be made. TransCanada will arrange for a representative to be on site when work is occurring on or near the right-of-way area, or within 25 ft. of the pipelines. After hours call 1-800-447-8066.

3. You or your contractor must hydro-vac or hand expose TransCanada's buried pipeline(s) prior to use of mechanical equipment within 15 ft. of the pipeline(s).

4. No sidecutters may be used.

5. No part of powered equipment shall come within three ft. of TransCanada's pipelines, or according to applicable State or Federal requirements.

6. No bucket, any attachment or load may be swung over TransCanada's pipeline(s) where there is less than 24 inches of cover.

7. Buried utilities should be designed to have at least eighteen (18) inches of clearance between their installed position and TransCanada's pipeline(s). As far as practicable, all buried utilities are to cross TransCanada's pipeline(s) at right angles.

8. You or your contractor must install and be responsible for the costs, including TransCanada costs, of a cathodic protection test lead station in the vicinity of the crossing. The above grade post shall be located at a location to minimize impact to the landowner. The test station must be a 4 wire Big Fink Model T-3, or equal mounted on a 3" diameter yellow PE post. The two test lead wires on each pipe shall be #10 AWG stranded and be thermite welded or pin brazed to the pipes and terminated and clearly labeled in the test station. TransCanada, or its contractor will thermite weld the required wires to the TransCanada pipe.

9. Proposed buried facilities where the function of the facility is reliant upon the elevation or slope of the facility, such as gravity flow sewers, will require a detail drawing of the new facility. The drawing must show the elevation of the new facility in relation to the elevation of the existing TransCanada pipeline(s) with the clearances identified.

10. Bored crossings are an acceptable method for constructing a crossing of a TransCanada pipeline(s) for cables, pipes, drains, etc. provided the following conditions are met:

- A drawing detailing the proposed bored crossing must be submitted to TransCanada for review and approval prior to construction. The items to be included on the drawing include; location of bore pits, alignment of the new facility, location of existing underground facilities, elevation profiles, etc.
- The top and side (side closest to the drill) of all TransCanada pipelines or buried facilities must be exposed by hand digging or hydrovac.
- Sight holes must be excavated at a minimum of five feet and a maximum of ten feet from the side (nearest to the drill) of each buried facility, and parallel to the existing TransCanada buried facility.
- Any bore pits required to set up and stage equipment shall be outside of TransCanada's buried facility right-of-way.
- The new crossing facility should maintain a continuous depth or consistent profile and straight horizontal alignment across the full width of the TransCanada right-of-way.
- The crossing facility must pass the TransCanada facility with a minimum clearance of three (3) feet.

11. When existing TransCanada buried pipelines are exposed, resulting in an unsupported length of 5 times the diameter of the existing pipeline, as a minimum, the following requirements shall be met:

- A layer of select bedding material, sand or a mixture of sand and crushed stone, shall be placed on the bottom of the trench 2 feet wider than the pipeline. This bedding shall be a minimum of 4 inches thick and be compacted.
- Structural backfill sand shall then be carefully placed in 6 inch lifts and compacted up to the middle of the TransCanada pipeline.
- The backfill, sand or native soil, above the pipe shall be free of rocks, cobbles and boulders and be compacted enough to prevent excessive settlement.

12. Underground electrical cables must be installed crossing the entire width of the TransCanada right-of-way using heavy wall conduit or PVC conduit to protect against the possibility of damage or electric shock from probing.

13. Underground cables energized to 600 volts or more should cross a minimum of 3 feet (1m) below the pipeline if practical, be protected by a concrete pad, color coded red, across the entire right-of-way width, and have external, spiral wound, neutrals grounded on each side of the right-of-way. The cable crossing should be clearly and permanently marked on each side of the right-of-way, if practical.

14. The design of overhead electrical cables energized to 600 volts or more that cross or parallel within 200 feet of TransCanada's pipeline(s) must be reviewed and approved by

TransCanada. This review may require installation of induced AC mitigation facilities, additional aerial markers, increased clearance to conductors, etc.

15. All overhead powerlines reaching a height of 75 feet or more must have highly visible ball markers installed on the portion crossing TransCanada's Right of Way.

16. No poles, towers or expansion anchors are to be located on the pipeline Right of Way or within 25 feet of TransCanada's pipeline(s) measured at right angles to the pipeline(s).

17. Blasting activities within 500 feet of the TransCanada right-of-way shall not occur until the blasting plan is reviewed and approved by TransCanada. This blasting plan is to be submitted to TransCanada for review a minimum of two (2) weeks prior to blasting activities.

18 Dredging activities within 500 feet of the TransCanada right-of-way shall comply with the following minimum requirements:

- A TransCanada representative must meet with the Corps of Engineers representative to review the plan.
- TransCanada must be contacted at least 72 hours prior to coming within 500 feet of the pipeline.
- A TransCanada representative must be on board the vessel when the dredging operation is within 500 feet of the pipeline.
- The TransCanada representative shall ensure the safety of the pipeline by stopping work if an unsafe condition exists.

19. In the event of equipment crossings outside of an existing road right-of-way or wherever our technician determines that inadequate cover exists, the contractor shall install and maintain temporary crossings of TransCanada's pipeline(s) at location(s) specified by TransCanada and that are/is perpendicular to TransCanada's pipeline(s). A minimum of five (5) feet of total cover over TransCanada's pipeline(s) is required. If fill is required to obtain the minimum cover, a suitable material (preferably a bank run gravel material, or a combination of wooden mats and bank run gravel, or a TransCanada approved "Portable Land Bridge") will be placed on the existing surface of the ground over the pipeline(s) from a point fifteen (15) feet ahead of the pipeline crossing to a point fifteen (15) feet wide so as to adequately bear the crossing weights of equipment. All vehicular traffic will cross TransCanada's pipeline(s) at these designated locations only.

20. The applicable state one-call system must be contacted at 811 in accordance with its advance notification requirements prior to any ground disturbance.

21. If you will be crossing one or more of TransCanada's transmission pipeline(s) please be aware that these pipeline(s) are coated with a material to protect them from corrosion. The coating may contain asbestos. If the excavation results in exposing TransCanada's pipeline(s) and there is any damage to the coating, you will be responsible for all costs, including any disposal costs, associated with the coating repair. If necessary, you will also be required to halt work activity while the coating material is being analyzed. The coating repair, including the

removal of the original material, will be performed by TransCanada personnel or a qualified third party contractor selected by TransCanada. All work will be done in accordance with TransCanada's current engineering and environmental standards. During the course of the excavation work, Contractor agrees to cooperate with TransCanada to insure all federal, state and local environmental and safety regulations are followed.

22. Should it be necessary for a TransCanada employee/representative to enter the excavation to inspect its pipeline(s), the excavation at the crossing shall be sloped in accordance with the requirements of the Occupational Safety and Health Administration.

TransCanada looks forward to working with you to minimize impact resulting from your project and also provide for the safety of the general public and the integrity of our pipelines.

Should you have any further questions regarding these guidelines, please call the following phone number: **1-800-562-8931**

PLEASE SUBMIT YOUR PLANS TO

Crossings and Encroachment Applications us_crossings@transcanada.com

TransCanada U.S. Land Management 700 Louisiana Street Houston, TX 77002

