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Near Company Pipelines***

**Guideline Number: TG-010**

**Date: 02/15/2013**

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## **1.0 PURPOSE**

This guideline presents the requirements for construction activities in the vicinity of Spectra Energy's pipeline(s) or pipeline right-of-way and the movement of vehicles or mobile equipment within or across the right-of-way by parties other than Spectra Energy (herein referred to as the Company). These requirements are general in nature whereby specific circumstances may necessitate special considerations.

The following areas are addressed.

- 1.0 Purpose
- 2.0 Pre-Construction Approvals and Notifications
- 3.0 Site Visits To Locate Facilities
- 4.0 Items to be Provided for Review Process
- 5.0 General Requirements
- 6.0 Excavation
- 7.0 Blasting
- 8.0 Facility Crossings

If any of the conditions stated in this document can not be satisfied, the Company representative shall be advised immediately.

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## 2.0 PRE-CONSTRUCTION APPROVALS AND NOTIFICATIONS

### 2.1 Activities Requiring Company Approval

Prior to commencing work, the encroaching party shall obtain the Company's permission for any proposed excavation, construction or temporary crossing upon, along, over, under or across the Company's pipeline(s) or pipeline right-of-way as described below.

- Crossings with anything larger than a standard passenger vehicle or mobile equipment outside the traveled portion of a highway or public road.
  
- Construction of a facility such as:
  - New permanent buried facilities - water, gas, oil, sewer, electrical, fiber optic, drains, etc.
  - New permanent aboveground facilities - power, telecommunication, cable tv, etc.
  - New road or railroad installations or improvements
  - New developments, grade changes, structures, parking areas, ditches, etc.
  - Minor excavation activities - fences, trees, facility maintenance, etc.
  
- Excavation using explosives or power-operated (mechanical) equipment within the Company's pipeline right-of-way.
  
- Blasting activities (including seismic survey activities) in the vicinity of the Company's pipeline right-of-way (see Section 7.0)



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If the encroaching party is considering an activity which is not listed above, they should contact the Company representative to determine if their activity requires permission and subsequent approval.

## **2.2 Request for Encroachment**

The encroaching party shall contact the Company to discuss details of the proposed construction or crossing activity and the information required for the Company's review.

Copies of any proposed plans and/or drawings may be required for certain construction or encroachment activities within or directly affecting the Company's pipeline right-of-way and shall be submitted to the Company for review and approval at least 30 days prior to the commencement of work.

## **2.3 Company Response to Encroachment Requests**

The Company shall be given at least three (3) working days advance notice prior to the actual commencement of any construction, excavation or crossing activities over or near its pipeline right-of-way so that the Company may locate its pipeline(s) and have a field representative present during these activities.

Additional time for technical analysis may be needed for certain construction projects affecting the integrity of the Company's pipeline(s).

The Company representative will make a determination of the



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complexity of the proposed activity and the level of Company approval required.



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### **3.0 SITE VISITS TO LOCATE FACILITIES**

**3.1** The Company considers it essential that landowners, builders, utility companies, developers and contractors know the location and depth of the Company's pipeline(s) and requires that the pipeline(s) be shown on any plans or drawings to be submitted for review.

**3.2** If requested, the Company will field locate and mark its pipeline(s) at selected points in accordance with federal, state and/or local requirements at no cost to the encroaching party. However, if the Company representative requires the pipeline be located by excavation, the cost to excavate the pipeline and restore surface improvements (e.g., pavement, landscaping, and sidewalks) shall be the responsibility of the encroaching party. Note: A Company representative must be present during any excavation to expose the pipeline. During this period, accurate survey data of the Company's pipeline(s) may be requested by the Company. This data shall be obtained by a qualified surveyor provided by the encroaching party for the preparation of plan, section and profile drawings.

**3.3** In addition to complying with the above requirements, the encroaching party shall comply with the provisions of all federal, state and/or local one-call regulations relating to excavation and demolition work in the vicinity of underground facilities.



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## **4.0 ITEMS TO BE PROVIDED FOR REVIEW PROCESS**

Simple residential driveways or utility crossings of the Company's pipeline right-of-way may not be subject to all of the requirements of this section. The Company will determine what information is required to be submitted for review on a case by case basis.

At a minimum the following information shall be provided with a request to the Company to determine if equipment/vehicle crossings and associated construction activity can be approved.

- a drawing or sketch showing the pipeline in relation to the proposed construction activity
- excavation plan including the method of installation of all facility crossings
- equipment description with weights and track/tire dimensions of any equipment/vehicles that may cross the Company's pipeline(s) during construction activity

In addition, any construction activity that requires the submission of drawings to a permitting agency for construction adjacent to or encroaching on the Company's pipeline(s) or pipeline right-of-way must include the information regarding Company facilities and pipeline right-of-way specified in this section.

- 4.1** Upon review of this specification and the incorporation of all applicable requirements, a complete set of design drawings showing existing conditions and proposed alterations shall be submitted to the Company for review.



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- 4.2** Upon final approval from the Company, two (2) sets of the final (definitive) design drawings and an electronic copy shall be provided to the Company.
- 4.3** The Company's pipeline(s) and pipeline right-of-way limits shall be accurately shown on all drawings. Upon 72 hours advance notice, Company personnel will locate and mark the location of the Company's pipeline(s). The encroaching party's survey crew can then accurately locate the facility by a field survey.
- 4.4** The encroaching party's survey crew will be responsible for laying out the proposed facility in the field and locating the Company's facility horizontally and vertically, accurately representing it in the plan and profile views on the drawing(s). The Company's Region Technical Staff will evaluate field data to determine whether additional design requirements are necessary for areas of proposed equipment/vehicular travel.



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## 5.0 GENERAL REQUIREMENTS

- 5.1 No buildings, structures or other obstructions may be erected within, above or below the Company's pipeline right-of-way. If requested, the Company will furnish pipeline easement information which describes the pipeline right-of-way width.
- 5.2 Wire type, stockade, decorative and similar type fencing that can be easily removed and replaced may cross the Company's pipeline right-of-way at or near right angles. Fences crossing the Company's pipeline right-of-way must have a minimum 10 foot wide gate for access. No fence shall be allowed within the Company's pipeline right-of-way parallel to the Company's pipeline(s).
- 5.3 Planting of trees is not permitted on the Company's pipeline right-of-way. The Company may side trim trees that overhang across the Company's pipeline right-of-way to eliminate obstruction of right-of-way visibility from the ground or air.
- 5.4 Planting of shrubs, bushes or other plants associated with landscaping on the Company's pipeline right-of-way is subject to Company approval and shall not exceed 5 feet in height at maturity. Shrubs, bushes or other plants shall not be installed within 10 feet of the Company's pipeline(s). The Company will not be responsible for the cost of replacing any landscaping damaged, destroyed or disturbed due to maintenance activities on the Company's pipeline right-of-way.



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- 5.5** No drainage swales and no reductions in grade are permitted on the Company's pipeline right-of-way. Limited additional fill may be deposited with prior written approval from the Company.

Proposed landscaping grades shall provide for 3 foot minimum cover over the Company's pipeline(s). The Company shall determine the maximum cover allowed over a Company pipeline(s) based on pipeline specifications and local conditions, including such issues as soil types. Proposed landscaping grades shall not exceed the Company's maximum allowable slope of 4:1 longitudinal with the pipeline and/or 8:1 cross-slope.

The Company reserves the right to modify these cover/grade requirements if deemed necessary. Proposed grades shall not restrict Company access to its right-of-way or cause ponding of surface water on the Company's pipeline right-of-way. Proposed grades shall not redirect the flow of water on to the Company's pipeline right-of-way or generate any amount of erosion on or near the Company's pipeline right-of-way.

- 5.6** A Company representative shall give prior approval for equipment/vehicles to cross the Company's pipeline(s) at any location.

Maximum and minimum depths of cover for all areas of equipment/vehicular travel (e.g., highways, roads, railroads, construction access, driveways, parking lots,

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etc.) will be determined by the Company and federal, state and/or local requirements. For this purpose, cover can be defined as the distance from the top of the pipeline to the finished grade. Mitigative methods where the cover is insufficient will be determined on a case by case basis.

Additional cover, construction mats, or temporary structural spans shall be installed for the protection of the Company's pipeline(s) at the point where equipment/vehicles will be crossing unless approval to cross without protection is specifically granted by the Company. Installation and maintenance of the crossing shall be the responsibility of the encroaching party. The Company will provide specifications for the crossing of pipeline facilities.

- 5.7** Test pits are used to supply the encroaching party with accurate elevations of the Company's pipeline(s) and to determine the quality of the fill material around the pipeline(s). At the discretion of the Company, test pits may be required in areas where equipment/vehicle crossings and/or facility crossings are proposed. For additional information on test pits reference Sections 6.2 and 6.3.
- 5.8** Parking areas should be planned so as to avoid covering the Company's pipeline right-of-way if possible.
- 5.9** No roads, pipelines, cables or utilities may be installed parallel to the Company's pipeline(s) within

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the Company's pipeline right-of-way.

- 5.10** All pipelines, roads, electrical cables and other utilities shall cross the Company's pipeline right-of-way at an angle at or near right angles, if practical.
- 5.11** If, in the judgment of the Company, the proposed facility necessitates the installation of casing pipe and/or other alterations to protect the Company's pipeline(s), the encroaching party will be required to execute a reimbursement agreement. The encroaching party will be required to pay the Company all or a percentage of the estimated cost of these alterations prior to the Company beginning any construction activity. Once the actual costs have been incurred and tabulated by the Company, cost variances shall be settled.
- 5.12** At the discretion of the Company, concrete slabs or other protective devices may be installed over the Company's pipeline(s) to provide protection. Design and installation drawings for the concrete slab/device will be provided to the encroaching party upon request.
- 5.13** All design standards mandated by federal, state and/or local government agencies shall be satisfied and a letter stating such shall be submitted to the Company prior to receiving final approval of the encroaching party's project.



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## 6.0 EXCAVATION

Excavation operations shall be performed in accordance with the guidelines set forth below.

6.1 No excavation, crossing, backfilling or construction operations near the Company's pipeline(s) or pipeline right-of-way shall be performed unless the Company representative is on site. The Company representative shall have full authority to stop the work if it is determined that the work is being performed in an unsafe manner or if a foreign object is spotted.

6.2 During the period of April 15 - November 1 test pits may be performed by the encroaching party provided Company personnel are present. Test pits can be scheduled by contacting the applicable Company representative. The Company will make every effort to accommodate the encroaching party's schedule for excavation of test pits. Such scheduling however, is subject to availability of Company personnel, weather, field operating conditions, etc.

6.3 During the period of November 1 - April 15 test pit excavation of the pipeline by means of mechanical equipment is not allowed. In instances where the encroaching party must expedite the design process, pipeline elevations may be obtained, depending on field conditions, by hand digging or soft digging equipment. The encroaching party must contact the applicable Company representative to coordinate these activities.

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**6.4** Excavation shall not be permitted within the Company's pipeline right-of-way until an excavation plan has been reviewed and approved by the Company representative. The excavation plan may be a written document or a verbal discussion with the Company representative. At a minimum, the excavation plan shall include but not be limited to the following:

- Backhoe set-up position in relationship to the pipeline
- Need for benching to level backhoe
- Required excavation depth and length
- Sloping and shoring requirements
- Ingress/egress ramp locations
- Minimum clearance requirements for mechanical equipment
- Pipeline location and depth
- Verify bar has been welded onto backhoe bucket teeth and side cutters have been removed
- Spoil pile location
- Compliance with applicable OSHA regulations

**6.5** The use of mechanical equipment in the vicinity of the Company's pipeline(s) shall be directed by the Company representative in accordance with Company procedures and applicable one-call regulations. The tolerance zone for excavations using mechanical equipment is 18 inches (unless otherwise required by state law) until the pipeline is visually located. Hand tools or soft dig equipment shall be used to complete the final excavation of the pipeline inside the "restricted"



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mechanical equipment limits of the excavation.

- 6.6** The use of a trenchless excavation method (i.e., bored crossings) shall be employed in such a way as to ensure a minimum radial clearance required by applicable standards is obtained between the new facility and the Company's pipeline(s).
- 6.7** Federal regulations require that the Company's pipeline(s) be inspected whenever it is exposed. Applicable OSHA regulations pertaining to excavations must therefore be met to ensure the safety of the Company representative who must enter the excavation. Furthermore ample time should be provided to allow the Company to perform relevant inspections prior to proceeding with backfill operations.



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## **7.0 BLASTING**

Blasting operations shall be performed in accordance with the minimum guidelines set forth below.

**7.1** The Company shall be advised of any blasting proposed within 200 feet of the Company's pipeline(s) and 500 feet for large scale quarry-type blasting. No blasting is permitted within the Company's pipeline right-of-way, and no blasting shall occur outside the Company's pipeline right-of-way if the Company determines that such blasting may be detrimental to its facilities.

**7.2** The Company reserves the right to require that the party responsible for blasting furnish a detailed blasting plan at least three (3) working days prior to blasting to allow for evaluation and to make arrangements for a Company representative to witness the blasting operation, including drilling and loading holes. Applicable blasting codes shall be followed in all cases.



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## 8.0 FACILITY CROSSINGS

All buried facilities shall be installed as noted below and as stated in Sections 5.9 and 5.10, as appropriate.

8.1 Buried facilities shall be installed below the Company's pipeline(s). The Company requires a minimum of 12 inches of clearance however in some situations this may need to be increased (e.g., bored crossings). Additional separation may be required in marshy areas or other areas where insufficient clearance would have a potential to cause future problems.

8.2 If the normal crossing requirements present undue difficulties as determined by the Company, buried facilities may be installed above the Company's pipeline(s) with prior approval from the Company representative. All such facilities shall be installed with a minimum of 12 inches of clearance. The Company will not be responsible for any damage or required repairs which are caused by the Company's operating and maintenance activities when facilities are installed above the pipeline(s). Protective measures such as a concrete encasement, ditch marking tape, and/ or above ground markers may be required as deemed necessary by the Company representative.

8.3 Suitable backfill shall be placed between the facility and the Company's pipeline(s). Suitable backfill is backfill free of rocks, refuse and any foreign material including, but not limited to, skids, welding rods, pipe rings, trash, tree and shrubbery limbs. In the



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case of anticipated crossing by equipment/vehicles the encroaching party shall provide specific material and compaction specifications (AASHO or equivalent) for review by the Company.

**8.4** The installation of test leads (two No. 10 THWN black insulated copper wires) attached at the point of crossing for corrosion control monitoring may be required for metallic lines as directed by the Company representative. Test wires shall be routed underground and terminated at a point specified by the Company.

**8.5** The following requirements shall be met for fiber optic cables which encroach upon the Company's pipeline right-of-way.

**8.5.1** High capacity fiber optic cable shall be installed in a rigid non-metallic conduit or covered in 6-8 inches of concrete which has been colored with an orange dye extending across the entire pipeline right-of-way. Other protective measures may be considered for non-high capacity cables.

**8.5.2** The fiber optic cable shall be installed a minimum of 12 inches below the Company's pipeline(s) across the entire width of the pipeline right-of-way, unless approved by the Company representative.

**8.5.3** Orange warning tape shall be buried a minimum of 18 inches directly above the fiber optic cable

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across the entire width of the Company's pipeline right-of-way, where practical.

**8.5.4** The fiber optic cable crossing shall be clearly and permanently marked with identification signs on both sides of the Company's pipeline right-of-way. Markings shall be maintained by the encroaching party for the lifetime of the facility.

**8.6** The information listed below shall be furnished to the Company for all proposed electrical cables which will encroach upon the Company's pipeline right-of-way.

- Number, spacing and voltage of cables
- Line loading and phase relationship of cables
- Grounding system
- Position of cables and load facilities relative to pipeline(s)

**8.7** Specific installation requirements for cables carrying less than 600 volts shall be determined by the Company on a case by case basis.

**8.8** The following installation requirements shall be met for buried electrical cables carrying over 600 volts but less than 7,600 volts. The Company's Region Technical Staff will determine the installation procedures for buried electrical lines carrying voltages over 7,600 volts on a case by case basis.

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**8.8.1** The electrical cable shall be installed in a rigid non-metallic conduit covered in a minimum thickness of 2 inches of concrete which has been colored with a red dye extending across the entire width of the Company's pipeline right-of-way.

**8.8.2** The electrical cable shall be installed a minimum of 12 inches below the Company's pipeline(s) across the entire width of the Company's pipeline right-of-way, unless approved by the Company representative.

**8.8.3** Each phase conductor should be surrounded with a spirally wound, concentric neutral conductor. The neutral may be within the outer cable jacket.

**8.8.4** Red warning tape shall be buried a minimum of 18 inches directly above the electric cable across the entire width of the Company's pipeline right-of-way, where practical.

**8.8.5** The electric cable crossing shall be clearly and permanently marked with identification signs on both sides of the Company's pipeline right-of-way.

**8.9** Overhead power line, telephone line and telecommunication installations shall be reviewed by the Company on an individual basis.

**8.9.1** Overhead lines shall be installed with a minimum clearance of 25 feet above the grade of the



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Company's pipeline right-of-way. The installation of poles and guys will not be permitted on the Company's pipeline right-of-way, and not within 25 feet from a Company appurtenance, unless assurances are made that the encroachment will not affect the Company appurtenance as a result of a fault or failure.