**Section 530.410 Underground Facilities – Gas Transmission Lines**

a) General

1) Gas pipelines shall be constructed, maintained, and operated in a Department approved, as defined in Section 530.30, manner and in conformance with "Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards" incorporated by reference at Section 530.20.

2) Crossing installations by open trench will be permitted only prior to roadway construction with vented encasement provided between ultimate ditch lines or toes of slopes of the highway as a minimum or as directed by the engineer. No above-ground vent pipes shall be located in the area established as clear zone for that particular section of highway.

3) Gas pipeline crossings shall have a minimum cover of 30 inches at all locations on right-of-way, including below design ditch elevation even if the ditch is higher than design elevation.

b) Fully Access-controlled Highways

1) Longitudinal Gas Pipelines:

New longitudinal gas pipelines will not be permitted within the access-control lines of fully access-controlled highways. Existing longitudinal gas pipelines may be permitted to remain if they can be serviced without access from the through-travel lanes, shoulders, or ramps of the fully access-controlled highway.

2) Gas Pipeline Crossings:

Gas transmission and distribution lines may be permitted to cross fully access-controlled highways under the following conditions:

A) The crossing provides a transmission or distribution service to a general area or an expanding area. No individual service lines will be permitted to cross a fully access-controlled highway except in cases of extreme hardship involving critical needs and isolated locations.

B) The design, materials and construction methods shall be those that can be expected to provide maximum maintenance-free service life.

C) Crossings under completed highway projects shall be installed by jacking or boring with vented encasement provided between the ditch lines or toes of slopes of the highway as a minimum or as directed by the engineer. No above-ground vent pipes shall be located in the area established as clear zone for that particular section of highway. The crossing may be installed using tunneling with vented encasement but only when the installation is not possible by other means. When tunneling, the venting of the encasement shall extend to within one foot of the right-of-way line. Crossings may also be installed by the use of "moles," "whip augers" or other approved methods which compress the earth to make the opening for pipe.

D) Encasement may be eliminated under the following conditions:

i) extra heavy pipe is used; and

ii) cathodic protection of the pipe is provided.

E) If encasement is eliminated, maintenance of damaged or decayed pipe may not disrupt the right-of-way. (See Section 530.30 "Disrupt the right-of-way")

F) Locations shall be avoided where rock excavation or deep cuts would make crossings with proper cover impractical.

G) The locations of the crossing pipe shall be marked at the right-of-way line with markers that identify the utility and provide emergency telephone numbers.

c) Conventional Highways

1) Longitudinal Gas Pipelines:

A) Gas pipelines for transmission, distribution, and service may be permitted longitudinal to the centerline of conventional State highways if the materials, construction methods, and other elements are in conformance with the provisions of this Part.

B) Longitudinal gas transmission lines shall be located as near the right-of-way line as practicable and not more than eight feet from and parallel to the right-of-way line.

2) Gas Pipeline Crossings:

Gas pipelines for transmission, distribution, and service may be permitted to cross conventional State highways under the following conditions:

A) Crossings of over 60 psig shall be installed by jacking or boring with vented encasement provided between the ditch lines or toes of slopes of the highway as a minimum or as directed by the engineer. No above-ground vent pipes shall be located in the area established as clear zone for that particular section of highway. The crossing may be installed using tunneling with vented encasement, but only when the installation is not possible by other means. When tunneling, the venting of the encasement shall extend within one foot of the right-of-way line. Crossings may also be installed by the use of "moles," "whip augers" or other approved methods which compress the earth to make the opening for the pipe.

B) Encasement will not be required for crossings of 60 psig or less.

C) Encasement may be eliminated under the following conditions:

i) extra heavy pipe is used; and

ii) cathodic protection of the pipe is provided.

D) If encasement is eliminated, maintenance of damaged or decayed pipe may not disrupt the right-of-way. (See Section 530.30 "Disrupt the Right-of-Way")

E) The locations of the crossing pipe for transmission and distribution lines shall be marked at the right-of-way line with markers that identify the utility and provide emergency telephone numbers. In urban areas, the markers for transmission and distribution lines may be eliminated as provided in current Federal regulations. (See 49 CFR 192.707 (1989))

F) In built-up or expanding areas, frequent service crossings are discouraged in favor of establishing distribution on both sides of the highway. The Department reserves the right to reject permits involving frequent service crossings.