May 5, 1975

Mr. P. D. Mahajan
Oil India Limited
Gauhati, Assam State
INDIA

Dear Mr. Mahajan:

Your letter of February 25, 1975, asked for advice concerning spacing of multiple pipelines within a pipeline right-of-way.

The United States Department of Transportation (DOT) has separate regulations for gas pipelines (49 CFR Part 192) and liquid pipelines (49 CFR Part 195). A copy of each is enclosed for your reference. These regulations have been written, insofar as practical, as performance regulations.

In the regulations for natural gas pipelines, Section 192.325, Underground clearance, requires a minimum of 12 inches clearance between a transmission pipeline being installed and other underground structure. If such clearance cannot be obtained, then other steps necessary to protect the pipeline from damage that might result from the proximity of the other structure must be taken. In the regulations for liquid pipelines, similar spacing or protection is required by Section 195.250, Underground clearance.

The liquid pipeline regulations, Section 195.210, Pipeline location, requires selection of right-of-way to avoid, as far as practicable, areas containing private dwellings, industrial buildings, and places of public assembly. This section also requires at least a 50 foot clearance between the pipeline and certain types of buildings unless the pipeline is provided with at least 12 inches additional cover over that normally required.

The DOT regulations in Sections 192.103 and 195.110 require that a pipeline be installed with adequate protection from anticipated external loads; however, the regulations do not specifically address multiple parallel pipelines on a right-of-way. In that case it would be necessary to provide whatever protection is necessary to protect the pipeline from the external forces that could be anticipated from the installation of a parallel pipeline. Some of the items that may be considered by an operator in determining the possible external forces are: soil characteristics, climate, bearing loads on existing pipelines by the ditch spoil and construction or maintenance equipment operating over the pipelines, possible direct damage by digging equipment, and potential hazard to any adjacent pipelines if any given pipeline should happen to fail in operation. Consideration may be also be given to the effect of the proximity of other underground structures on the cathodic protection system and the space available.

If we can be of further assistance in your pipeline safety efforts, please advise.

Sincerely,

Joseph C. Caldwell
Director
Office of Pipeline Safety

Enclosures