

Review of Pipe Specifications,
Interprovincial Pipe Line Company

Acting Director, Office of Pipeline Safety

Director, Bureau of Railroad Safety
Federal Railroad Administration

Pursuant to your request of November 16, 1971, we have reviewed the pipe specification of Lakehead Pipe Line Company (Interprovincial Pipe Line Company) for the manufacture of pipe with two longitudinal seams. Based on this review, we find nothing contained in the specification which would lessen safety and, in particular, the specification appears to meet all of the requirements of Section 195.112.

Lakehead PipeLine Company is proposing to construct a loop of their system using 48-inch pipe with two longitudinal seams places 180? from each other. Two sections of Part 195 are involved. Section 195.112 which contains manufacturing requirements for new pipe and Section 195.106 which contains the formula used for internal pressure design including as one of the factors to be applied, the seam joint factor.

The manufacturing requirements of Section 195.112 are written in performance language. The specification submitted by Lakehead appears to comply with these performance requirements. However, the pipe specification on which Lakehead bases it specification, API 5LX, does not now cover pipe with more than one longitudinal seam. Since 1968 the committee which maintains API 5LX has been working toward a revision to include pipe with two seams. We have been advised by API that such a revision was balloted and adopted this year and will be included in the 1972 edition of API 5LX. The Committee on Standardization of Tubular Goods at the 1971 Standardization Conference, will cover the manufacture of pipe with two longitudinal double submerged-arc weld seams incorporating the following conditions:

- (1) The diameter must be greater than 36-inch;
- (2) The location of seams must be approximately 180? apart;
- (3) paragraph 2.1.d of Standard 5LX will be captioned "Submerged - Arc Weld, Double Seam;" and

- (4) the required tests on welds will be performed after forming and welding.

The seam joint factor in Section 195.106 depends on the pipe specification and type of seam (o.e., submerged-arc welded or electric resistance welded). The joint factor established in Section 195.106 for all submerged-arc welded pipe manufactured to an API pipe specification is 1.00. We can find no technical justification at this time for not accepting that recommended joint factor for use in the design with pipe containing two longitudinal submerged-arc welded seams.

Attached is a suggested reply to Mr. Bucklee.

Joseph C. Caldwell

Attachment