

September 30, 1993

Mr. Mohan Thomas
Design Manager (Piping)
FEDO
Cochin, India 683 501

Dear Mr. Thomas:

This responds to your questions in the order set forth in your fax of September 2, 1993.

1. What are applicable codes/procedures for under ground piping and the sub-marine piping of ammonia?

The regulations applicable to the pipeline transportation of ammonia are 49 CFR Part 195 (copy enclosed). Specific requirements that may differ for offshore pipelines are set forth in the wording of the section involved (such as § 195.246(b)).

2. Codes/procedures for ensuring manufacture, testing commissioning and routine check for such pipelines through an extremely populated area.

The regulations in Part 195 cover manufacture (e.g., §§ 195.112 and 195.116), testing (Subpart E), and routine maintenance (Subpart F). In some cases, the regulations set forth different requirements for pipelines traversing an extremely populated area (e.g., § 195.410(b)(2)).

3. Codes/procedures for leak check, leak monitoring, evaluation of such lines.

Some of the regulations in Subpart F of Part 195 pertain to leak checks and leak monitoring (e.g., §§ 195.412 and 195.416).

4. Procedures/guidelines for design, laying, and installation.

In Part 195, design requirements are found in Subpart C and the construction (laying and installation) requirements are found in Subpart D.

5. Other references/documents/consultants to obtain information on these piping.

The American Society of Mechanical Engineers publishes a document designated ASME/ANSI B31.4 and entitled "Liquid Transportation Systems for Hydrocarbons, Liquid Petroleum Gas, Anhydrous Ammonia, and Alcohols." It is available from the American Society of Mechanical Engineers; 345 East 47th Street; New York, New York 10017. The chairman of the B31.4 committee, Mr. L. F. Clynch, may be consulted for information about the document and related matters.

Sincerely,

Cesar De Leon
Director, Regulatory Programs
Office of Pipeline Safety