

September 4, 1973

Mr. Vernon J. Schweinebraten
Corrosion Engineer
Steuart Petroleum Company
Storage Terminal
Piney Point, MD 20674

Dear Mr. Schweinebraten:

In your letter of August 20, 1973, to Mr. Heverly you stated:

"However, for companies to keep squared away without going down the drain by replacing all coupled piping with new, by conducting leak surveys-soil resistivities, what is the 'Rule of Thumb' that can be used to expose, bond over couplings and add cathodic protection-or-replace a section of line with coated pipe, insulate and add cathodic protection?"

"I'm speaking of 'corrosive areas,' someone stated if you have (5) leaks in (5) years within 500' that this is a corrosive condition and corrective action must be taken (Bare pipe-coupled)."

The Office of Pipeline Safety has no "Rule of Thumb" for determining areas of active corrosion on bare coupled piping. This question came up before with regard to the two electrode "leap-frogging" surface potential survey method for locating areas of active corrosion on Dresser-coupled pipelines. Enclosed is a copy of the OPS's interpretation as published in the August 1972 and March 1973 Advisory Bulletins in reply to questions about the use of this technique.

As indicated in your letter, a soil resistivity survey would provide a method of determining where corrosion may be taking place.

In connection with information that someone gave you relative to five leaks in five years within 500 feet constituting a corrosive condition, I would suggest you ignore such advise. Each leak due to corrosive requires repair or replacement of the pipe segment and cathodic protection.

You asked in your letter:

"Would you please write me and explain what the law states?"

Basically, the law states that for transmission lines that are bare or ineffectively coated, the operator shall by August 1, 1974, cathodically protect those areas where active corrosion is found. For distribution lines, the operator shall by August 1, 1976, cathodically protect those areas where active corrosion is found. The operator shall, where practical, determine areas where active corrosion is taking place by electrical survey. Where electrical survey is impractical, areas of active corrosion are to be based on corrosion leak history records, by leak detection, or by other means. Once cathodic protection is installed, the operator shall monitor its effectiveness annually.

In regard to your question concerning corrosion control for liquid pipelines, the OPS plans to have those requirements be essentially the same as that required for the gas industry.

I trust this information answers your questions. If we can be of further help, please contact us.

Sincerely,

/signed/

Joseph C. Caldwell
Director
Office of Pipeline Safety