

Mr. Dan H. Weaklend  
Chief, Pipeline Safety  
Utilities Division  
1200 West Washington  
Phoenix, AZ 85007

Dear Mr. Weaklend:

I am responding to your July 28, 1991 letter regarding the enforcement of criteria 1-A(1), in Appendix D, Title 49, Part 192, Code of Federal Regulations. In addition, you inquired about possible Office of Pipeline Safety (OPS) Rulemaking regarding criteria for monitoring cathodic protection. I will specifically address each of your questions.

**QUESTION 1. Is the fact that an operator incurs a corrosion leak and has used the -0.850 ON criteria for testing without considering the " bulk soil IR drop" a valid reason to cite an operator?**

ANSWER: Appendix D, Part II, Part 192 of Title 49, is clear that voltage (IR) drops other than those across the structure-electrolyte boundary must be considered for valid interpretation of voltage measurements.

OPS has been following an enforcement policy developed in the mid 1980's under which, when an operator claims he has accounted for the IR drop. OPS will accept that claim. If, however, the operator had a leak due to corrosion, OPS may ask the operator to demonstrate the adequacy of corrosion protection and how the operator considered the IR drop in determining the adequacy of the corrosion protection. If this was done improperly, the operator could be subject to enforcement action. It has never been OPS's position that the occurrence of a corrosion leak is sufficient evidence of a violation and the operator is to be cited.

OPS recognizes that corrosion can occur under certain circumstances, such as, disbonded coating, shielding, or under bacteria attack even when a pipeline is protected against corrosion. However, if disbonded coating, shielding effects, bacteria attack, or other legitimate factors which may prevent current flow through the electrolyte to the pipe are ruled out, and the IR drop was not properly considered, an operator could be subject to enforcement action.

It is possible to consider the IR drop on magnesium anode protected systems. If an inspector or operator places the half cell on the surface of the soil/ ground and obtains an abnormally high potential, there is a good possibility that the half cell is over an anode. To ensure that it is not

over an anode, an inspector or operator should simply move the half cell upstream or downstream from that point and take a reading. OPS does not require operators to disconnect anode wires in order to read instant-off potentials on distributed sacrificial anode protected systems.

**QUESTION 2. Is it true that OPS is planning on issuing a standard criteria for monitoring cathodic protection?**

ANSWER: As you are aware, the National Association of Corrosion Engineers (NACE) is meeting this fall to possibly adopt new standards for cathodic protection. If NACE does adopt a new standard, it is likely that OPS would initiate rulemaking to adopt this new standard. If NACE does not adopt this new standard, there is a possibility that the existing NACE Standard RP-01-69-83 may be withdrawn. If the NACE Standard RP-01-69-83 is withdrawn, then the only cathodic protection standard to evaluate the adequacy of corrosion protection on pipelines in the United States would be in Appendix D Part 192. Should this happen, it is likely that OPS would initiate a rulemaking project to update the criteria listed in Appendix D.

I trust I have been responsive to your questions. If you need further clarification regarding enforcement policies, please contact Jim Thomas, Chief, Southwest Region. Your cooperation is appreciated.

Sincerely,

George W. Tenley, Jr  
Associate Administrator for  
Pipeline Safety

**NOTE: This Letter belongs in Appendix "D"**