

# 8-G Internal Corrosion Design and Monitoring

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### **1.0 SCOPE**

This purpose of this chapter is to identity design and monitoring criteria for internal corrosion.

### **2.0 REGULATORY REFERENCES**

49 CFR Part 192 §§ [192.475](#), [192.476](#), [192.477](#)

### **3.0 PROCEDURE**

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##### **3.1 Internal Corrosion Control Requirement [[192.475](#)] [[192.476](#)]**

- (a) Natural *gas* transported by DENC and DESC has been found to have little or no corrosive effect on *pipeline* materials. Standards are set forth by DENC and DESC that ensure that materials used in the pipeline system are suitable for use with natural gas. No requirements for IC (internal corrosion) control have been set forth by DENC and DESC but monitoring is required in accordance with [subsection 3.2](#) of this procedure.
- (b) Coupons, Electric Resistance probes, chemical testing of condensates, or other means *may* be established to monitor whether the threat of internal corrosion (IC) becomes a credible threat. *Should* future testing indicate a need for an IC monitoring program more advance than outlined below, a company standard will be developed.

- (a) Whenever a section of pipe or a pipe coupon is removed, it *shall* be examined for evidence of IC. Any internal corrosion found shall be documented on appropriate forms.
- (b) If internal corrosion is found, a sample of the section of pipe, or the entire pipe coupon shall be sent with the documentation to Engineering. Engineering shall inspect the section of pipe or pipe coupon to determine if further investigation or remedial action is needed.
- (c) If a single corrosion coupon or Electric Resistance probe is installed for IC monitoring due to finding corrosive gas, then it shall be inspected twice a year with the interval not to exceed 7-1/2 months.
- (d) If active IC is found in a *transmission line*, then any change in the line's configuration will require a review of whether the impact may change the credibility of IC as a threat *downstream* of that point.
- (e) If a corrosion monitoring system is installed to determine if internal corrosion may become a credible threat as defined in the Pipeline Integrity rule, then it *must* be monitored annually, not to exceed 15 months.

### 3.3 Design for Internal Corrosion Protection

Corrosion control shall be considered in the design for pipelines. Any new source of gas should include an installation of a single corrosion coupon or Electric Resistance probe to ensure the quality of gas and that internal corrosion is not a threat.

### 4.0 TRAINING/QUALIFICATIONS

See the appropriate system Operator Qualification Program.

### 5.0 DOCUMENTATION/FORMS

System specific forms should be used where applicable.

#### State Specific: South Carolina

- [Exposed Pipeline Examination Report \(DESC Form OM-402\)](#) (PDF file)

Corrosion control documentation shall be maintained for the life of the pipeline.

### 6.0 RELATED DOCUMENTS

None at this time.

### 7.0 APPENDICES

None at this time.

