

Development of Model for ECDA Decision-Making Criteria

Description: A spreadsheet model intended to prioritize excavations that are associated with ECDA.

Status: Model has been developed, reviewed and completed. More validation efforts are warranted.

BENEFITS

The criteria that pipeline integrity engineers use to determine where to dig under the External Corrosion Direct Assessment (ECDA) process varies by company and situation. Lack of understanding of the factors affecting criteria can result in inaccurate selection of indications. The outcome of this is either choosing incorrect indications or conservatism and cost by adding more excavations.

The ability to standardize on those criteria is a complex solution that needs to consider the specific conditions in various environments and with use of different tools by different companies.

The benefits of a consortium and industry-based effort to define and validate an ECDA criteria model include more informed and consistent decision-making and a process that is defensible to regulators. Also, by studying a Cathodic Protection model and using indications from the

Direct Assessment tools to assess the likelihood and severity of a coating anomaly, pipeline integrity engineers can demonstrate to their management and regulators that a proactive approach to repair/replace/monitor decisions can simplify and/or better justify the integrity assessment process.

BACKGROUND

NYSEARCH, the research, development, and demonstration organization within the Northeast Gas Association retained CC Technologies and University of Florida to develop a simple model that can assist pipeline integrity engineers in

identifying and prioritizing External Corrosion Direct Assessment (ECDA) digs. This approach is intended to optimize the ECDA process.

Prior to the Pipeline Integrity ruling being adopted in late 2003, many discussions were held with DOT/OPS regarding various aspects of DA. The regulators pointed to the need for uniform criteria across all pipelines that would identify an operator where to dig. The NGA DA Working Group realized that these discussions could lead to the development of criteria that is overly simplified and not technically



