Efficient Tools for Planning Pipeline Safety and Integrity

HCACalculator™

HCACalculator™ assists pipeline operators in meeting regulatory compliance, enabling rapid and accurate classification of high consequence areas (HCAs) along gas transmission pipelines. According to the U.S. Department of Transportation Office of Pipeline Safety (OPS) rule, operators are required to incorporate HCAs into their pipeline integrity management planning.

Under the rule (U.S. DOT 49 CFR 192 Subpart O), operators must verify that they can obtain accurate location information on areas that meet HCA classification, which includes areas with concentrated populations and facilities with difficult-to-evacuate populations. Used in conjunction with existing data sets, HCACalculator™ enables operators to locate potential HCAs, identify segments of pipe, and calculate affected zones. This information is critical to assessing pipeline safety, determining risk, and prioritizing inspection, prevention, mitigation, and maintenance activities.

FLEXIBLE ARCHITECTURE

A Microsoft Windows application that uses COM and ActiveX technologies, HCACalculator™ is designed to work as an integral part of an enterprise GIS or as a standalone application linked to a database. The application is also user configurable to reflect company-specific implementation requirements and interpretations. HCA analysis with HCACalculator™ is based on the C-FER equation with structure-count thresholds and the calculation of the potential impact zone, both of which the user can set for the extended zone along the length of the pipe centerline.

HCACalculator™ is built to be configured to work on a variety of GIS data models, including customized ISAT and PODS data models. Depending on an operator’s current system configuration and user base, the tool can be integrated with GIS or used as a stand-alone application. Sewall can help decide which is the best fit for a particular organization. Sewall also offers operators assistance in acquiring and assessing existing data sets for use in HCA determination.
INTEGRITY MANAGEMENT TOOLS AND SERVICES

HCACalculator™ is one application in Sewall's suite of integrity management tools that support class location analysis, pipeline alignment sheet generation, and risk calculation. In addition to pipeline applications, Sewall provides comprehensive pipeline-related services, including aerial photography, surveying, GIS consulting and customization, data conversion, and data maintenance. For more information on our pipeline services and software, please contact Clarence Young, Project Manager, at James W. Sewall Company, at (800) 648-4202; Email: youc@jws.com