





Integrated Flow, Internal Localized Corrosion, Microbiologically Influenced Corrosion (MIC), and Solid (iFILMS®) Software

iFILMS®

iFILMS® predicts internal localized pitting corrosion rate of carbon steel for oil and gas pipelines and facilities. Many leaks and failures are due to internal localized pitting corrosion. iFILMS® helps oil and gas industry to minimize failures and leaks due to internal corrosion and thereby leads to uninterrupted operation, cost savings, safe environment and enhanced corporate reputation.

iFILMS® Uniqueness

- Predicts corrosion damage mechanisms (CDMs):
 - Localized pitting corrosion (LPC).
 - ▶ Flow-induced localized corrosion (FILC).
 - ▶ Microbiologically influenced corrosion (MIC).
 - ▶ Under-deposit corrosion (UDC).
 - ▶ Top of the line corrosion (TLC).
 - ▶ Erosion-corrosion (EC).
 - Corrosion-under coating (CUC).
- Accounts for variation of LPC rate based on CDMs, time, length of the pipeline, and changes in the elevation profile and in the operation conditions.
- Includes effects of corrosion mitigation strategies (cleaning pigs, corrosion inhibitors, biocides, internal coatings/linings) and accessories.
- ▶ Integrates data from monitoring techniques and ILI to enhance reliability.
- ▶ Applicable to sour (up to 60 %) and sweet fields.

iFILMS® Validation based on

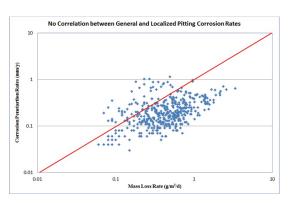
- ▶ Laboratory testing, field testing, field data analysis, and field validation that included following 288 pits over a period of 15 years.
- ▶ Comparison of localized pitting corrosion rate with inline inspection (ILI) data.
 - ▶ 5,000 individual corrosion features (iFILMS® and ILI agreed within 10%, 95% of time and 15%, 99% of time).
- User testing scientific interim parameters, i.e., iFILMS[®] is not a black-box!



Internal corrosion means localized pitting corrosion (LPC) that causes over 60 % of oil and gas pipeline and facility failures.

iFILMS® is the only software that predicts internal Localized Pitting Corrosion Rate.

Do you know that there is no correlation between "general" and "pitting" corrosion rates?



Based on National Institute of Stds. And Tech., USA, NISTIR 7415, Report "Analysis of Pipeline Steel Corrosion Data from NBS (NIST) Studies Conducted between 1922-1940" and Relevance to Pipeline Management", May 2, 2007

For more details

Web: www.stemcorrosion.com | Technical: office@corrmagnet.com | Sales: info@interlaceindia.com



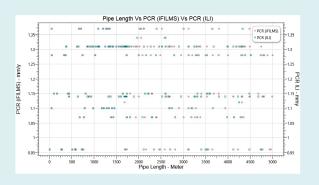
Services offered by iFILMS® Team

- ▶ iFILMS® software with Single/Multiple Licenses.
- Format the input data from the client, run iFILMS® and provide results to the client.
- Customization and integration of iFILMS® with other integrity and management software products.
- ► Technical consultation and More!



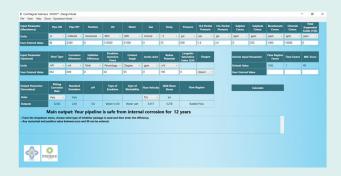
Piggable Pipelines

- iFILMS® integrates data from ILI to enhance reliability.
- Provides Pitting Corrosion Rate from both model and ILI.
- Helps to determine ILI run frequency.



Design Stage

- Design mode of iFILMS® provides guidelines for optimizing the corrosion allowance of carbon steel for new sour and sweet projects based on realistic pitting corrosion rate.
- Predicts service life in sour and sweet environments.



Non-Piggable Pipelines

- ▶ iFILMS[®] is useful in the indirect inspection step of all four NACE ICDA standards (SP0110, SP0116, SP0206, and SP0208) and exceeds the requirements of NACE 21410
- Automatically selects appropriate ICDA flow calculations based on user inputs and provides "pre-assessment" sites.

