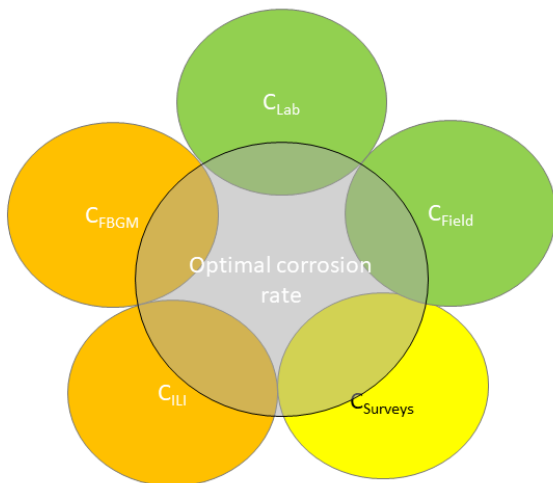


Spring 2021, April Edition: Newsletter 07

While Driving How Often Do You Look at the Rearview Mirror?



Experienced drivers focus on the road ahead by looking through windshield while glancing the rearview mirror once awhile, i.e., they keep the main focus on the road they are about to travel while being aware of the road they had travelled.

Why do corrosion professionals do things other way around, i.e., focus on the road they had travelled and not aware of the road they are about to travel? This is what that would happen if the corrosion professionals placed all their efforts on inline inspection (ILI).

ILI is a "lagging indicator", i.e., it provides information only after corrosion and other risks have caused damage. On the other hand, predictive models are futuristic, i.e., they are "leading indicators" providing information before onset of corrosion. By judiciously integrating information from both leading indicators (such as models) and lagging indicators (such ILI, NDT, and above ground techniques), the integrity of the pipelines and facilities is greatly improved.

Cost of carrying out modeling is less than **10 %** of ILI cost. The sizing accuracy of ILI is 20 %, with 80 % confidence, and accuracy of field-validated models equals or exceeds this. Integration of leading indicators and lagging indicators will enable achieving 10 % sizing accuracy with 90 % confidence.

Software products such as [iFILMS™](#) (for internal corrosion control) and [Expedition™](#) (for external corrosion control) enable efficient and effective integration of data from models, ILI, NDT, above-ground techniques, and monitoring techniques.

Top Influencer of This Newsletter:

Sandra Hernandez



My Story

Born and raised in Venezuela, graduated as a Materials Engineer at the Simon Bolivar University in Caracas. Became involved in the Oil and Gas Industry as an intern and never left. Now with more than 25 years' experience in Oil and Gas, I'm a Principal Materials and Corrosion Engineer for Chevron. Before that worked in both field and central engineering roles in BP and PDVSA. I am recognized inside and out of Chevron as a Subject Matter Expert in Upstream corrosion mechanisms, erosion, and corrosion modeling, monitoring and control.

My Style

I believe in working through and with others to reach our goals. Corrosion management requires not only providing solid technical recommendations but working with Operations and Projects personnel to implement them. I believe in a team culture of transparency and high integrity.

Pinnacle Moment

As a female, a wife, and a working mother I'm proud to have been able to manage all responsibilities and have a very successful career in materials and corrosion engineering. I'm proud to be a NACE Fellow and a contributor to the resolution of many problems in Industry by providing expert corrosion-erosion prediction, prevention and monitoring and materials consulting services to operating companies, affiliates and major capital projects worldwide. My pinnacle moment was to see my daughter graduate from college.

Greatest Contribution

That is for others to decide

PS: Industry recognizes Sandra as the trailblazer and role model for young, aspiring, and upcoming female engineers and professionals.

Advice to Industry

Be flexible, and resilient. We need to advance a lower carbon future and Oil and Gas has a vital role to play in this global transition of energy.