

Winter 2021, March Edition: Newsletter 06



Doing More with Less is Sustainable!

The popular buzzword among managers in the challenging time is "do more with less". The common question among the engineers and technologists is whether this is sustainable.

The reality is that the engineers and technologists need to travel on this path. Change of attitude, leadership and technology will help.

This newsletter illustrates a path-forward with one example.

Controlling internal corrosion with addition of corrosion inhibitor is the time tested and proven strategy for over 100+ years. Several tests have been, and are being carried out, to select an inhibitor. Often time the results from one laboratory do not agree with the one obtained in another laboratory; consequently, additional tests in additional laboratories have become necessary. This is not sustainable.

Fortunately, standards-making organizations have developed standard tests, established standard procedures, and published standard reference test results. ASTM G205 is an example. Using ASTM G205 as reference point, a database on the efficiency of various inhibitors can be developed. This will reduce the number of tests, increase confidence of selecting appropriate inhibitors, and sustain effective evaluation, selection and application of corrosion inhibitors.

Top Influencer of This Newsletter:

Nihal Obeyesekere



My Story

I went school in West Texas where I studied Chemistry and started my career as a researcher at the Department of Neuro-oncology at MD Anderson Cancer Center, Houston, TX. After eight years as a cancer researcher, I switched over to oil and gas industry. For the last thirty years, I am a chemist searching for the best and most costeffective inhibitors to mitigate corrosion failures in mild steel.

My Style

I firmly believe that the best way to combat corrosion is to work in the field and to solve field problems. Innovation of new best-in-class products, new application methods, and development of state-of-the art equipment can help to reduce corrosion related failures and to reduce corrosion related costs only if they can be applicable in the field.

I also take time in mentoring young scientists and engineers as I believe that they will be tomorrow's leaders in our field.

Pinnacle Moment

My passion is to develop non-toxic chemicals (green chemicals) and to reduce the carbon footprint. I have developed several product lines and have published extensively in the area of low toxic inhibitor development. My pinnacle moment was when the chemical formulation I had developed drastically reduced the number of failures in a large company in West Texas. Before implementation of the chemical, the company had suffered several internal corrosion failures losing large amount of money and their reputation.

Greatest Contribution

Though I have chaired many NACE Task groups and symposia (including STG 31, TG 512, TEG 202X, TEG 201X and currently SC 13) and won many awards (including Finalist for Lifetime Award by World Oil Congress in 2017, NACE Distinguished Service Award in 2017 and NACE Fellow award in 2021), I would consider that the Technical Exchange group (TEG) 282x: Sour (H₂S) corrosion I started as my greatest contribution. Over the past two decades this TEG has evolved as the forum to discuss, debate, and find solutions to control sour corrosion.

Advice to Industry Global warming is real. We, in oil and gas got unfairly implicated for this issue and we may have to live with it. However, we can do our part to correct this. Think sustainability. Make chemicals and products non-toxic and good for our environment.