

Pigging with multiphase corrosion inhibitors

Corrosion is a common pipeline issue that can prove exceedingly harmful to an asset. As is this case with many potentially damaging pipeline matters, the best measures are often the ones that help prevent the problem before it occurs, rather than tackle it once it's already begun.

Pigging has many useful purposes, including applying a corrosion inhibiting film to pipeline internals before layup. This helps protect the pipeline against corrosion and its associated problems while the pipeline sits unused.

Traditional corrosion inhibitors only protect metal surfaces in direct contact with the inhibitor carrier fluid; however, Cortec's multiphase corrosion inhibitors, applied by pigging, offer enhanced protection by forming a protective molecular layer on all metal surfaces inside the pipeline, even those in the airspace above the fluid.

Top of the line protection

Cortec's VpCI®-637 is a multiphase package of corrosion inhibitors used to combat the broadest range of corrosive attack from moisture and condensation, oxygen, carbon dioxide, hydrogen sulfide and other corrosive contaminants in natural gas and petroleum. The non-emulsifying formulation offers the benefits of corrosion inhibitors that form a tenacious protective film on metal surfaces, neutralising inhibitors that combat corrosive fluid formation and vapour phase inhibitors that reach areas inaccessible by direct contact.

VpCI-637 can be applied by slugging a dose between two batching pigs and the concentrated product can be diluted to stretch farther for more economical protection. As the product flows along the pipe, it leaves behind a corrosion inhibiting film and also emits vapour phase corrosion inhibitors that protect the areas of the pipeline that typical film-forming corrosion



A corrosion inhibitor can be applied by slugging it through the pipeline between two pigs. Image courtesy Cortec/Adobe Stock.

inhibitors cannot reach (i.e. the top of the line).

After the inhibitors are applied, the pipeline can be closed and protected for an extended period of layup. Engineers should always check compatibility of VpCI-637 (or any inhibitor) with the final pipeline product before application.

If this has been verified, the pipeline may not even need to be flushed before it is recommissioned, making startup much easier. If compatibility has been confirmed, VpCI-637 may also be injected into the pipeline during operation to combat top of the line corrosion caused by condensation in the pipeline headspace where contact-only inhibitors cannot reach.

Whether using pigging or some other

technique to mothball a pipeline, the key is to choose a material that will provide thorough protection to allow the pipeline to be as free of corrosion as possible when it is brought back into use. Cortec products, such as VpCI-637, can be applied by pigging or other methods and offer this multiphase protection to allow better 360° surface coverage for protection of pipe internals.

This product is available through Savcor Products Australia in Australia and New Zealand. **P**

For more information visit www.savcorproducts.com.au



Products for the Pipeline Industry
www.savcorproducts.com.au
 Call: 1800 SAVCOR

Cathodic Protection Materials:

- Cortec VpCI Preservation Materials
- Sacrificial anodes (Zn, Mg, Al)
- Corrosometer resistance probes
- Gypsum bentonite backfill
- Dehn & Sohne IEC Certified Spark Gap Arresters
- Surge Protectors
- Borin Permanent & Portable electrodes
- Loresco Coke Backfill
- APS Flange Insulation Kits
- Radolid Nuts Protectors

Pipeline Fittings & Equipment:

- Pipeline pigs and equipment including:
- Foam, Poly Coated & Wire Brush Pigs
 - Monolithic Insulating Joints
 - Hot Tapping Equipment
 - Wachs Pipe Cutting and Beveling
 - Pipe Seals, Pipe Clamps, Leak Repair
 - APS Casing Spacers
 - Impressed Current & Sacrificial Anodes

Trusted Supplier of Cathodic Protection & Prevention materials in Australia.

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