**Introduction**

Instrumented Pipeline Inspection gauges (IPIG) are devices used for inline inspection of long distance buried pipelines for their health assessment & reliability. Inline inspection helps in identifying the locations of potential failure, residual strength of pipelines and efficacy of corrosion internal/external corrosion mitigation programs.

**Indigenous IPIG Technology**

As a joint initiative with BARC, IndianOil has developed Magnetic Flux Leakage based IPIG tools of 12”, 14”, 18” and 24” sizes. The design specification of these indigenously developed tools is at par with that of the international tools. The IPIG technology has been developed from the fundamental design of both magnetic circuits, mechanical and electronic components capable of enduring the in-service inspection of pipeline. The technology has an automated software component for quick & accurate data analysis of the extensive inspection data.

Pilot plant loops of 12” & 24” diameter and around 500m length each simulating the pipeline conditions with internal and external defects are also available for performance evaluation as well as calibration of IPIG tools. Linear pull through rig facilities for dry evaluation of inspection tool of 14” to 22” sizes are also available.

Using these indigenous tools and technology, more than 2500 Kms of pipelines sections have been successfully inspected and the vulnerable corrosion locations identified by the tools have also been physically verified through dig site.

IndianOil continues to utilize its indigenous technology for inspection of its own pipelines besides providing services on a commercial basis.

**Salient Features**

- IPIG tools with performance specification at par with the international tools.
- Capability to design & fabricate tools of any size.
- Proven performance of the tools designed for in-service inspection.
Contact details

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